

Archaeological Evaluation

**Meadows 2B2C site,
University of Essex,
Wivenhoe Park,
Colchester**

**ASE Project No: 190413
Site Code: ECC4352**

ASE Report No: 2019202



July 2019

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NGR: TM 2166 2242

Planning Ref: Pre-application Ref. 190182

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Abstract

This report presents the results of a second phase of archaeological evaluation carried out by Archaeology South-East within the Meadows 2B2C site, University of Essex, Wivenhoe Park, Colchester, Essex, between 24 and 26 June 2019. The fieldwork was commissioned by LinkCity in advance of ongoing development of the University Campus.

Forming part of a wider development site, the c.2.2ha site lies within an area of archaeological interest, as demonstrated by the upstanding earthwork, cropmark and below-ground remains of a prehistoric, presumably Bronze Age, barrow cemetery comprising five barrows, one of which lies within the site boundary.

Previous evaluation of the Meadows 2B2C site and its wider vicinity in 2004 revealed limited evidence of prehistoric, Late Iron Age, Roman and post-medieval/modern activity. In 2010-11, archaeological monitoring of preparatory groundworks on site, which involved topsoil stripping and construction of a building platform by raising the level of the flood plain using deposits derived from on-site borrow pits, revealed no archaeological remains within the area of the current site except for residual prehistoric, medieval and post-medieval finds, and the known barrow.

Given the results of previous investigations and the proximity of the prehistoric barrows, six additional trenches were investigated specifically within the footprints of proposed buildings.

No archaeological features, deposits or residual finds of pre-modern date were encountered within the evaluation trenches. The evaluation established that 0.66m-1.23m of modern made-ground deposits, which had been deposited during the preparatory groundworks, directly overlaid the natural clay.

CONTENTS

- 1.0 Introduction**
- 2.0 Archaeological Background**
- 3.0 Archaeological Methodology**
- 4.0 Results**
- 5.0 Finds and Environmental Samples**
- 6.0 Discussion and Conclusions**

Bibliography
Acknowledgements

APPENDICES

- Appendix 1: Summary Table of Heritage Assets within Study Area
- Appendix 2: HER Summary
- Appendix 3: OASIS form
- Appendix 4: Written Scheme of Investigation

TABLES

- Table 1: Quantification of site paper archive
- Table 2: Quantification of artefact and environmental samples
- Table 3: Trench 28 list of recorded contexts
- Table 4: Trench 29 list of recorded contexts
- Table 5: Trench 30 list of recorded contexts
- Table 6: Trench 31 list of recorded contexts
- Table 7: Trench 32 list of recorded contexts
- Table 8: Trench 33 list of recorded contexts

FIGURES

- Front Cover Image: General site view, looking south-west
- Figure 1: Location of site and heritage assets
- Figure 2: Location of current and previous phases of work
- Figure 3: Trench 28 plan and photographs
- Figure 4: Trench 29 plan and photographs
- Figure 5: Trench 30 plan and photographs
- Figure 6: Trench 31 plan and photographs
- Figure 7: Trench 32 plan and photographs
- Figure 8: Trench 33 plan and photographs

1.0 INTRODUCTION

1.1 Site Background

1.1.1 Archaeology South-East (ASE), the contracting division of UCL's Institute of Archaeology Centre for Applied Archaeology, was commissioned by LinkCity to undertake an archaeological evaluation on land at the Meadows 2B2C, part of the University of Essex campus at Wivenhoe Park, Colchester, Essex, prior to potential development.

1.1.2 The evaluation has been undertaken in advance of the submission of a planning application for the proposed development of the site.

1.2 Location, Topography and Geology

1.2.1 The c.2.2ha site lies to the west of the main campus of the University of Essex, at Wivenhoe Park, 2.5km east of the historic core (Roman town walls) of Colchester (Fig. 1). The overall development area, of which the site is a part, is delineated to the south and south-west by Salary Brook, to the north by Elmstead Road and to the east by Boundary Road. Within this area, the current site is situated to the west of Capon Road and north of Annan Road (both of which were constructed between 2009 and 2012). The site is an area centred on National Grid Reference (NGR) TM 2166 4255 (Fig. 1).

1.2.2 The site includes a levelled platform at c.3.15m AOD. This was constructed in c.2010-11 using clays excavated from a borrow pit within the site and from elsewhere on the campus. An area to the west of the site, which includes two upstanding barrows and a third visible as a cropmark, remains at its original level and is fenced off.

1.2.3 The underlying natural topography of the site slopes downwards to the west and the Salary Brook. The following AOD levels have been derived from 'as built' site surveys provided by the client (Drawing Ref. JCE-7292-AB-600; dated 14/12/11) and provide the surface height across the site after the topsoil was removed in 2011-12. Given this, they are likely to be at or close to the upper surface of the natural geology – the archaeological horizon. At Capon Road this surface is at c.3.5m AOD, dropping to c.2m AOD along the line of a relict field ditch. Beyond this, the slope shallows off, gently dropping to c.1.8-1.9m AOD in the vicinity of Salary Brook. On this basis, the ground level has been raised by c.1-1.1m across much of the site and there may have been some ground reduction along the eastern edge by the roadway.

1.2.4 According to the British Geological Survey 1:50,000 scale geological mapping available online (BGS 2019), the superficial geology of the site is Intertidal Deposits (Clay and Silt – alluvial deposits) across the lower lying flood plain to the west with a band of Head (diamicton) deposits further upslope. As the ground rises beyond the site, the clays, silts and sands of the Thames Group, the bedrock, outcrop on the valley sides.

1.2.5 Previous archaeological works at the site (Ennis 2004; Wightman 2012) established that topsoil (a dark brown grey clayey silt), which has since been removed, overlaid silty clay and gravels (the alluvial deposits), which were grey or orange in colour.

1.3 Planning Background

- 1.3.1 The proposed development seeks to erect student residential units, with associated landscaping. The development is currently in the pre-application process with Colchester Borough Council (CBC) (Ref. 190182). The proposed residential units are part of a wider ongoing scheme of development at the University. Infrastructure works (e.g. link roads) have been completed and elements of the overall development have been constructed.
- 1.3.2 Various phases of archaeological works have been undertaken since 2003, on the site itself and across the wider development area. The most recent study is an archaeological desk-based assessment (DBA) (ASE 2019a), which provided a synthesis of the archaeological and historical data relating to the site. A summary of the results of the previous works is provided within Section 2.
- 1.3.3 The previous archaeological works established that the site lies within an area of archaeological importance, particularly in relation to a group of prehistoric barrows. Two survive as upstanding earthworks and a third as a cropmark, and what may be a fourth is visible on Lidar imaging. These lie outside (but close to) the site. A fifth barrow lies within the site. The group of monuments is provisionally a Scheduled Monument (Case Ref. 1437082) and so development is not proposed to take place in the area of the fifth barrow.
- 1.3.4 As the development area lies within an area of archaeological interest, the CBC Archaeological Officer, Dr Jess Tipper, recommended that archaeological trial trenching in addition to an earlier programme carried out in 2004 should be undertaken in advance of determination of the application to enable the development of an archaeological mitigation strategy. CBC issued a Brief for the work (CBC 2019) and approved a Written Scheme of Investigation (WSI) issued by ASE (2019b). The latter set-out the scope of work for the trial-trenching evaluation; it was prepared in accordance with the relevant standards and guidance (Gurney 2003) and all work was undertaken in accordance with this document and the relevant ClfA standards and guidance (ClfA 2014a, b).

1.4 Scope of Report

- 1.4.1 This report presents the results of six archaeological evaluation trenches excavated on the site between 24 and 26 June 2019. It describes the archaeological remains encountered, considers their significance and assesses the potential for further remains to be present across the wider site.

2.0 ARCHAEOLOGICAL BACKGROUND

2.1 Introduction

2.1.1 An archaeological DBA was carried out in relation to the proposals in April 2019 (ASE 2019a), drawing on evidence held in the Essex Historic Environment Record (EHER), the Colchester Historic Environment Record (CHER) and other readily available sources. That document also synthesised the results of the previous works on the site and in the vicinity, and placed them within their wider context. The following background information has been summarised from the DBA. Heritage assets referred to in the text are indicated in **bold** and a summary provided as Appendix 1. Locations of such assets are shown on Figure 1.

2.2 Previous Archaeological Works

2.2.1 The site lies within an area where there has been a significant amount of recent archaeological investigation as works on the development at the University of Essex have progressed. The following paragraphs summarise the works that have been undertaken on the Site itself with relevant findings outlined in the period subsections. Information on those works on the wider campus can be found in the DBA (ASE 2019a).

2.2.2 The first stage of archaeological works at the University was an archaeological DBA of an extension to the masterplan area, to the west of Boundary Road (Heppell 2004). This included the current development area. The DBA established that the development lay in an area of archaeological interest, and upstanding remains and cropmarks representing five barrows (**1**) were present. Four (**1b–1d, 1f**) lie outside the raised platform (development area) and the fifth (**1a**) below it (surviving as buried deposits).

2.2.3 Pre-determination archaeological trial-trenching was undertaken in 2004 (Ennis 2004). Twenty-seven trenches (a c.3% sample of the area) were excavated within the area as a whole. Work in the western field, within which the site is located, established that the barrows/ring-ditches were man-made, i.e. archaeological monuments, although it was unable to definitively establish a date and function for them.

2.2.4 In 2010-11, an archaeological watching brief was undertaken by the Colchester Archaeological Trust (CAT) during preparatory groundworks (Wightman 2012). These works involved the removal of vegetation and topsoil by bulldozer across 'Area A'. Barrow **1a** lay within this area and was partially stripped by bulldozer and the remainder by a 360° excavator equipped with a toothless bucket. Finds collection, magnetometer survey and detailed Lidar data analysis were undertaken over the barrow remains. The area was then covered in c.1m of made-ground in order to raise the ground surface above the flood plain.

2.3 Prehistoric

2.3.1 The later Neolithic/Early Bronze Age saw changes in funerary practice, from communal monuments to individual barrows. These barrows typically survive as cropmarks of ring-ditches, having been 'ploughed out', but they can also survive as upstanding monuments. Examples of both lie within the site and its

immediate vicinity (**1a–1f**). The individual monuments have been identified as **1a–1f** for consistency with previous reporting, particularly Wightman (2012). Typologically, these are typical of a Bronze Age barrow or burial monument. The group is provisionally Scheduled and thus the area has been excluded from proposed development.

- 2.3.2 Barrow **1a** now lies below the recently constructed building platform and the NMR reported it as being visible as a 'low vague mound...with no visible ditch' (NMR TM 02 SW 1). It was barely visible on the ground in 2003/4. Evaluation Trench 27 was positioned to investigate this barrow (Ennis 2004). This revealed a poorly-defined ditch in a position consistent with that of the ring-ditch visible on aerial photographs. One excavated fill contained abraded Roman pottery and one small sherd of prehistoric pottery, the former perhaps hinting at the re-use of the monument. The mound was also investigated, but its base was not established. The latest worked flint collected from the interior of the mound is tentatively dated as Iron Age, while Roman pottery was collected from a deposit on the mound and ring-ditch interface. It seems that the surrounding alluvial layers had accumulated against the mound over a prolonged period, perhaps indicating a substantially earlier date than the ceramic evidence would imply. Geophysical survey (Wightman 2012) showed the surrounding ditch was not continuous and the gaps may represent causeways, thus making this example a henge-barrow/causewayed ring-ditch.
- 2.3.3 The most obvious of the upstanding barrows is **1c**, which is around 0.9m high and 18m in average diameter. There were two electricity poles set into the top of the monument, which have since been removed. The NMR refers to this as a bowl barrow (NMR TM 02 SW 1). Barrow **1b** is another upstanding bowl barrow, which is also currently visible. It measures 15m in diameter (NMR TM 02 SW 1) and approximately 0.5m in height. Barrow **1d** lies to its west and is located adjacent to the railway and the Salary Brook, the diversion of which after the construction of the railway has cut off a part of the western side of the feature. Whilst there is no obvious surviving mound associated with this barrow, the surrounding ditch is clearly visible as a cropmark/slight earthwork. Lidar survey data was also utilised; this analysis also identified what may be another barrow to the west (**1f**), marked with a '?' on Plate 7 of the CAT watching brief report (Wightman 2012).
- 2.3.4 On the other side of the railway, on the former Moler Works site (now a B&Q store), aerial photographs show an impressive ring-barrow (**1e**), 28m in overall diameter with two concentric ditches separated by a low bank. Archaeological investigation was undertaken in advance of development, but no trace of the ring-ditch was located (M. Winter, CMS, *pers. comm.*).
- 2.3.5 This group of monuments is thought to be a barrow cemetery. They are typically of Middle to Late Bronze Age date and usually positioned in elevated locations, for example on the brows of hills, but increasing numbers of such monuments are being identified in Essex in low-lying positions close to watercourses. It remains possible that the barrow remains are Iron Age or Roman in origin, but these are very much a rarity in Essex, and the later artefacts retrieved from them are perhaps more likely to represent re-use of the barrows.
- 2.3.6 There is little evidence of settlement accompanying the barrows. On a practical

basis, it is assumed settlement would be upslope, out of the flood plain. A 'flint spread', on the interface between the soft alluvial clay and a compact natural clay below, was identified in evaluation Trench 10 (**23**); the only other prehistoric remains identified during the 2004 evaluation were occasional finds. A similar pattern was noted in the 2010/11 watching brief (Wightman 2012), with the greatest number of flints recovered from the area of the barrow. This is likely to, in part, reflect the greater amount of work in this area. Where datable, these flints spanned the Neolithic and Bronze Age. Overall, no evidence of settlement pre-dating the Late Iron Age/Early Roman period has been found during the archaeological investigations at the University.

2.4 Iron Age and Romano-British

2.4.1 By the time of the Roman conquest of AD 43, Colchester (*Camulodunum*) had been established and was the principal centre of the Trinovantes tribe. The settlement is thought to have been founded in the late 1st century BC, on a site between the Colne and Roman rivers, and protected by a series of earth banks and ditches (referred to as dykes), as well as by natural features. Late Iron Age and Early Roman settlement activity lay some distance to the west of the walled town of Colchester (and the site) in the vicinity of Sheepen, Gosbecks and Lexden. Work on a legionary fortress to the east of Sheepen began in AD 44 and there was also a Roman colony, founded in AD 49 after the withdrawal of the 20th Legion and re-using the site of the fort, which became the core of the historic walled town of Colchester. Colchester is well documented as a Roman town, and its walls are still extant in many places.

2.4.2 The site lies approximately 2.5km east of the Roman town walls in what was probably a largely rural area. The archaeological evaluation works in 2004 (Ennis 2004) identified a concentration of Late Iron Age to Early Roman boundary ditches, postholes and deposits, centred around Trenches 21, 23, 24 and 25, all outside the current development area. Features were also observed in this vicinity during later works (Wightman 2012).

2.4.3 Additional archaeological monitoring at 'The Meadows', to the south-east of the development area, also identified a colluvial deposit, containing Late Iron Age to Roman pottery, overlying the natural alluvial silty clays. A total of nineteen features were observed cutting into the natural, but not investigated; they were subsequently covered by a piling mat (Wightman 2013).

2.4 Early Medieval (Anglo-Saxon) and Medieval

2.4.1 The University lies partially within Greenstead and partially within Wivenhoe, within the hundred of Colchester. The earliest known reference to *Grenstede* dates to c.950, the place name meaning 'green place' (Reaney 1935, 373). Domesday records include 24 acres of marsh and meadow, along with a mill; this would probably have been a watermill (Rumble 1983). The meadow and marsh were probably on the flood plain of the Colne and Salary Brook. In all likelihood, this land would have been used as grazing pasture for sheep.

2.4.2 It is possibly in the medieval period that the original 'Wivenhoe Park' (**38**) was established initially as a deer park (EHER 16186). Deer parks were private land, surrounded by a deer-proof fence, also known as a park pale. In the case

of Wivenhoe, by the mid-18th century, land had been converted into a park for 'some time' (Morant 1768, 187).

2.4.3 Beyond the deer park, archaeological trenching and excavation at the new Innovation Centre, east of the current development area (Pooley 2016a, b) identified a number of field boundary ditches, pits and postholes dating to the early/mid 13th to mid-14th century, perhaps suggesting the presence of a small medieval farmstead in the immediate vicinity.

2.4.4 The current development area lies to the south and west of the medieval remains described above, in an area that was marshy and low lying and, presumably, utilised for pasture. The development of the 'New Hythe' in the 11th century may coincide with the first improvements to the Colne. Coupled with the development of the river, alterations may have occurred in the adjacent marshland, such as that in the vicinity of the current development area. This may perhaps have included new drainage patterns and/or embankments.

2.5 Post-Medieval and Modern

2.5.1 In the early part of the post-medieval period, Wivenhoe Park was owned by the Beriffe family of Brightlingsea (Morant 1768, 188). The earliest source depicting the park dates to 1734 (ERO D/DU 27/1) and shows a park area enclosed by a fence, with a building along the southern boundary of the park (now Boundary Road), which is to the north of the current development area. In 1734, the park was sold to Isaac Lemming Rebow; the Rebows were a Huguenot (Protestant) family who became prominent locally, active in local politics and the army. The estate remained in the hands of the Rebow family until 1902. The park was 'improved' in the 18th century to become a landscape park, with the addition of a new mansion, lakes, formal gardens, a kitchen/walled garden and bridges.

2.5.2 It would seem reasonable to suggest that at this time the land that lay outside the boundaries of the park, particularly the flood plain, which would have continued in use as pasture. The 1734 map shows the area surrounding the park as fields. The Colne follows roughly its modern route, with the field layout roughly the same as that shown on later maps, particularly the tithe maps drawn up prior to the construction of the railway (ERO D/DU 27/1).

2.5.3 The Tendring Hundred Railway opened in 1863 as a single track line linking the Hythe in Colchester to the port at Wivenhoe (NMR TM 01 24). The railway cut across the flood plain of the Colne, resulting in the alteration/simplification of the field system to create larger fields and the re-routing of Salary Brook. These activities bisected barrow **1d** and separated the group from **1e**, which lay on the other side of the railway line.

2.5.4 The post-medieval remains identified during the earlier evaluation works reflect the primarily agricultural nature of land use and comprise a number of field ditches, excavated for the purposes of drainage and/or defining field boundaries. These include a length of ditch encountered in Trench 4, located to the west of barrow **1a** and another in Trench 10 (Ennis 2004).

2.5.5 Wivenhoe Park house and grounds were occupied by the War Department between 1939 and 1946. World War II features include a possible anti-tank

ditch recorded from aerial photographs (44). No trace of this feature has been identified in the archaeological investigations across the University.

- 2.5.6 In the 1950s, the government announced its intentions to support the creation of a number of new universities. Wivenhoe Park was chosen as a site for the University of Essex and was sold to the University for £75,000 on 01 January 1962. The University, designed by the architect Kenneth Capon, was centred on the stream running down from the lakes towards the flood plain. Five linked quadrangles were to be constructed on stilts above this, providing the administration, teaching and recreational facilities. Only part of the design was completed, with only six of the proposed twenty-eight residential tower blocks being built.
- 2.5.7 Ordnance Survey (OS) mapping through the 20th century shows that the site, lying outside the main area of the campus, remained largely unchanged. The barrows (1) are first depicted on the 1960 map and there are a number of straight drainage ditches in the area, at least one of which was identified during the 2004 evaluation works. These would appear to have been infilled by the 1970s.
- 2.5.8 The University has continued to expand; the main campus is delineated by Boundary Road, with Wivenhoe House and the main park area being relatively unchanged, the house now used as a conference centre. This historic park is on the Register of Parks and Gardens, maintained by English Heritage.

2.6 Project Aims and Objectives

- 2.6.1 The general aims of the archaeological investigation, as stated in the WSI (ASE 2019b), were as follows:
- To determine the presence or absence of any archaeological remains and to establish their character, location, extent, date and quality.
 - The results of the works aim to provide sufficient information to enable an appropriate archaeological mitigation strategy to be devised.
 - The archaeological works have the potential to contribute to regional research objectives, set out in Research and Archaeology Revisited: a revised framework for the East of England (Medlycott 2011).
 - Should archaeological remains be found, an assessment of their significance will be made against the wider background of previous fieldwork in the area.
- 2.6.2 The more specific research questions identified in the WSI were:
- Is there any evidence for additional prehistoric land-use, such as ring-ditches, being present within the site?
 - Can any such evidence be related to the adjacent archaeological remains of the barrows?
 - Is there any additional evidence which relates to past land-use and

colluvial/alluvial deposits?

- Is there the potential for the survival of palaeo-environmental remains?

2.6.3 With reference to the East of England research framework (Medlycott 2011), the site was considered to have the potential to contribute to the following regional research themes/questions:

- Patterns of burial practice need further exploration. This should include the relationship between settlement sites and burial, and the development and use of monuments, including burial mounds as key elements in determining and understanding the landscape (Medlycott 2011, 20)
- The possibility that significant sites remain hidden under colluviation requires further study (Medlycott 2011, 21)

3.0 ARCHAEOLOGICAL METHODOLOGY

3.1 Fieldwork Methodology

- 3.1.1 Six evaluation trenches were positioned in accordance with the WSI (ASE 2019b) (Fig. 2). Trench locations were focused on areas of proposed development and/or gaps in the earlier (2004) trenching array. Trenches were also placed to avoid a recently infilled ditch in order to reduce the risk of trench flooding. The trench numbering was designed to continue on from the 2004 evaluation. Due to a potential duplication of numbers, the trench originally numbered as 27 and located in the north-east corner of the site was renumbered as 33. The trenches comprising this evaluation phase are therefore Trenches 28-33.
- 3.1.2 Due to the logistical difficulties of deep excavation, the trench dimensions differed a little from those proposed. Slopes left for health and safety reasons resulted in shorter than proposed trench bases and the trenches were wider than proposed at ground level, as there was a need for them to be stepped. The dimensions as dug are outlined in Section 4. It is not felt that any deviation from the proposed dimensions has adversely affected the evaluation results.
- 3.1.3 Minor positional changes were made to Trenches 29 and 31 in order to avoid visible existing pipes. Trench 30 was re-positioned c.22m to the north-east for health and safety reasons due to the proximity of the site cabin; this adjustment was agreed with the archaeological monitoring officer, as the new trench location remained within the footprint of the proposed building.
- 3.1.4 All trenches were accurately located using a Digital Global Positioning System (DGPS) and were scanned for the presence of underground services prior to excavation using a CAT scanner.
- 3.1.5 All trenches were excavated using a 360° tracked excavator fitted with a toothless bucket. The overburden was stripped under archaeological supervision down to the top of geological deposits and cleaned using hand tools, where appropriate.
- 3.1.6 Standard ASE excavation, artefact collection and recording methodologies were employed throughout, with all work carried out in accordance with the Chartered Institute for Archaeologists (CIfA) *Code of Conduct* (CIfA 2014a) and *Standard and Guidance for Archaeological Field Evaluation* (CIfA 2014b), and in compliance with *Standards for Field Archaeology in the East of England* (Gurney 2003).
- 3.1.7 All stratigraphy was recorded using the ASE context recording system, with all exposed deposits recorded and sample excavated as appropriate, except obviously modern features and disturbances.
- 3.1.8 Post-medieval and modern features were excavated, as necessary, in order to establish their date and significance. Features were excavated using hand tools and planned using digital survey equipment.
- 3.1.9 Only finds obviously modern in date were present. Therefore, none were collected from excavated deposits for specialist analysis and reporting.

3.1.10 Written records of trenches were made using *pro forma* trench record sheets and, where appropriate, single context record sheets. A digital photographic record was compiled, including working shots to represent more generally the nature of the site and fieldwork.

3.1.11 Due to the absence of archaeological remains, no bulk soil samples were collected for the recovery of environmental material and small artefacts.

3.2 Archive

3.2.1 The archive will be prepared in accordance with guidelines contained in the *ClfA Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives* (ClfA 2014c).

3.2.2 The site archive is currently held at the offices of ASE. Subject to agreement with the legal landowner, ASE will arrange with Colchester and Ipswich Museums Service for the deposition of the archive. The contents of the archive are tabulated below (Tables 1 and 2).

Item	Quantity
Context sheets	6
Drawing sheets	0
Colour photographs	0
B&W photos	0
Digital photos	18
Context register	1
Drawing register	0
Watching brief forms	0
Trench Record forms	6

Table 1: Quantification of site paper archive

Item	Quantity
Bulk finds (quantity e.g. 1 bag, 1 box, 0.5 box 0.5 of a box)	0
Registered finds (number of)	0
Flots and environmental remains from bulk samples	0
Palaeoenvironmental specialists sample samples (e.g. columns, prepared slides)	0
Waterlogged wood	0
Wet sieved environmental remains from bulk samples	0

Table 2: Quantification of artefact and environmental samples

4.0 RESULTS

4.2 Summary

- 4.1.1 Six evaluation trenches (Trenches 28-33) were excavated on site during this second phase of evaluation (Fig. 2). The trenches variously measured 13.70–34.40m long and 5.00–6.40m wide (including trench slopes and steps) and were generally set out in their proposed positions according to the WSI, with Trenches 29 and 31 being re-positioned slightly to avoid service pipes (ASE 2019b). The main exception was Trench 30, which was re-positioned c.22m to the north-east to avoid the site cabin.
- 4.1.2 The deposit sequence comprised mid brown silt topsoil in all trenches with a thickness varying between 0.15m and 0.30m. Beneath this, either one or two layers of modern made-ground were present, with an overall thickness range of 0.66-1.23m. In turn, underlying natural deposits of orange and bluish grey clay were exposed in the bases of all of the trenches.
- 4.1.3 There was no evidence of buried topsoil deposits surviving below the made-ground. The preparatory groundworks undertaken across the area in 2010-11 removed any such historic cultivation deposits. Natural geological deposits were exposed at depths between 0.84m (Trench 33) and 1.49m (Trench 31) below ground level.
- 4.1.4 All six excavated trenches were found to be devoid of pre-modern archaeological remains. The following sections (4.2–4.7) present brief descriptions for each.

4.2 Trench 28 (Fig. 3)

Context	Type	Interpretation	Length	Width	Depth	Height (AOD)
28/001	Layer	Topsoil	25.00+	5.60+	0.15-0.20	3.21-3.41
28/002	Layer	Made-ground	25.00+	5.60+	0.48-0.56	-
28/003	Layer	Made-ground	23.50+	2.10+	0.28-0.31	-
28/004	Layer	Natural	18.00+	2.10+	-	1.78-1.98

Table 3: Trench 28 list of recorded contexts

- 4.2.1 Trench 28 was located in the east corner of the site and orientated east/west. Underlying topsoil [28/001] was modern made-ground layer [28/002], which was a mid brownish yellow sand and gravel with rubble inclusions. It overlaid redeposited light/mid greyish blue clay [28/003], which also contained modern rubble inclusions and exhibited some discolouration in the west of the trench. Both were present throughout the trench. Natural clay was exposed in the base of the trench at between 0.94m and 1.04m deep.

4.3 Trench 29 (Fig. 4)

Context	Type	Interpretation	Length	Width	Depth	Height (AOD)
29/001	Layer	Topsoil	25.30+	5.00+	0.25-0.34	3.05-3.18
29/002	Layer	Made-ground	25.30+	5.00+	0.36-0.64	-
29/003	Layer	Made-ground	25.00+	2.10+	0.34-0.45	-
29/004	Layer	Natural	18.00+	2.10+	-	1.45-1.85
29/005	Layer	Made-ground	3.00+	2.10+	0.3	-

Table 4: Trench 29 list of recorded contexts

4.3.1 Situated in the north of the site, Trench 29 was NNE/SSW aligned. Underlying topsoil [29/001], modern made-ground [29/002] was a mid brown clay with inclusions of demolition material including stone, ceramic building material (CBM), glass and metal, all of modern date. It overlaid made-ground [29/003], a blue grey clay with comparable modern inclusions. This layer was not present in the north end of the trench, for c.3m, where instead there was a black silty clay with evidence of organic decomposition, [29/005]. Natural clay was exposed in the base of the trench at a depth of between 1.00m and 1.14m.

4.4 Trench 30 (Fig. 5)

Context	Type	Interpretation	Length	Width	Depth	Height (AOD)
30/001	Layer	Topsoil	24.00+	5.10+	0.18-0.20	3.15-3.20
30/002	Layer	Made-ground	24.00+	5.10+	0.58-0.60	-
30/003	Layer	Made-ground	23.20+	2.10+	0.55-0.63	-
30/004	Layer	Natural	16.80+	2.10+	-	1.50-1.56

Table 5: Trench 30 list of recorded contexts

4.4.1 Adjacent to the south-east site boundary, Trench 30 was NE/SW aligned. Below topsoil [30/001], modern made-ground layers [30/002] and [30/003] were both present throughout the trench. Layer [30/002] comprised a mid brownish yellow sand and gravel deposit with rubble inclusions, and [30/003] consisted of redeposited light/mid greyish blue clay with modern construction debris. Natural clay, with evidence of some discolouration, was exposed in the base of the trench at between 1.31m and 1.43m deep. Modern truncation, likely resulting from the preparatory groundworks previously carried out on site, was noted crossing the centre of the trench on a roughly north/south orientation; this was not fully recorded given its clear modern date.

4.5 Trench 31 (Fig. 6)

Context	Type	Interpretation	Length	Width	Depth	Height (AOD)
31/001	Layer	Topsoil	13.70+	6.40+	0.35	3.02-3.17
31/002	Layer	Made-ground	13.70+	6.40+	0.42-0.45	-
31/003	Layer	Made-ground	13.60+	2.10+	0.65-0.72	-
31/004	Layer	Natural	7.25+	2.10+	-	1.46-1.51

Table 6: Trench 31 list of recorded contexts

4.5.1 Trench 31 was positioned in the south of the site, to the east of the known barrows, and on a NE/SW alignment. Underlying topsoil [31/001], modern made-ground layer [31/002] was a mid grey brown clay and overlaid layer [31/003], a mixed greyish clay layer with modern inclusions including concrete, CBM, glass and rope. Both made-ground layers were present throughout the trench. The underlying natural clay, [31/004], was exposed in the base of the trench at between 1.45m and 1.49m deep.

4.6 Trench 32 (Fig. 7)

Context	Type	Interpretation	Length	Width	Depth	Height (AOD)
32/001	Layer	Topsoil	16.30+	5.50+	0.23-0.30	3.09-3.13
32/002	Layer	Made-ground	16.30+	5.50+	1.05-1.20	-
32/003	Layer	Natural	7.25+	2.10+	-	1.46-1.48

Table 7: Trench 32 list of recorded contexts

4.6.1 Located north of Trench 31, in the south of the site c.12m east of barrow **1a**, Trench 32 was orientated NE/SW. Topsoil [32/001] overlaid modern made-ground layer [32/002], which was a grey brown clay with rubble inclusions, including stone and brick. It was present throughout the trench, with the underlying natural clay exposed in the base of the trench at between 1.35m and 1.43m deep. A c.2.5m-long sondage was excavated at the north-east end of the trench to investigate a discolouration in the natural deposit. This was confirmed to be of natural origin.

4.7 Trench 33 (Fig. 8)

Context	Type	Interpretation	Length	Width	Depth	Height (AOD)
33/001	Layer	Topsoil	34.40+	5.30+	0.30-0.50	3.21-3.25
33/002	Layer	Made-ground	34.40+	5.30+	0.43-0.88	-
33/003	Layer	Natural	28.50+	2.10+	0.52+	2.04-2.36
33/004	Layer	Natural	2.70+	2.10+	0.15	1.90
33/005	Fill	Fill of [33/006]	3.10+	2.10+	0.39	-
33/006	Cut	Modern truncation	3.10+	2.10+	0.39	-

Table 8: Trench 33 list of recorded contexts

4.7.1 Trench 33 was located in the north-west of the site and positioned on a NW/SE alignment adjacent to the site boundary. Underlying topsoil [33/001], modern made-ground layer [33/002] was a light to mid brown silty clay, with modern brick, metal and stone, present throughout the trench. At the north-west end, its composition also included a thick deposit of redeposited natural clay, beneath which was the dark brown/black clay silt fill, [33/005], containing modern refuse, of modern cut [33/006]. As exposed, this feature measured c.2.3m by 3.3m, continuing beyond the trench limits. This modern truncation continued below the base of the trench to depths exceeding 1.46m, and was likely associated with the recent preparatory groundworks. A natural deposit of

pale orange grey clay ([33/003]) was exposed at the centre of the trench at a depth of 0.84m, with an additional lower clay, [33/004], exposed within a c.2.70m-long sondage excavated at the south-east end, at a depth of 1.45m.

5.0 FINDS AND ENVIRONMENTAL SAMPLES

5.1 Summary

- 5.1.1 The evaluation on land at the Meadows 2B2C, University of Essex, revealed no finds of pre-modern date. Finds of clearly modern date included concrete, stone, CBM, metal, glass and rope, all of which were recovered from modern made-ground deposits. Being of modern date, this material was not collected for specialist analysis and reporting.
- 5.1.2 The evaluation collected no bulk soil samples for environmental analysis or small artefact recovery, as no pre-modern deposits were encountered.

6.0 DISCUSSION AND CONCLUSIONS

6.1 Overview of stratigraphic sequence

- 6.1.1 The stratigraphic sequence across the site comprised redeposited topsoil, with a thickness varying between 0.15m and 0.30m, that overlaid either one or two layers of modern made-ground deposits with a combined thickness of 0.66m-1.23m. The made-ground directly overlay natural deposits.
- 6.1.2 Natural deposits exposed in the bases of the trenches comprised a mix of orange and bluish grey clay. The top of these deposits was encountered between 1.85m AOD (Trench 29) and 2.04m AOD (Trench 33) in the north, at 1.78m AOD in the east (Trench 28) and at 1.46m AOD in the south (Trench 31). In relation to the current (raised) ground level, the depth of the natural deposits was between 0.84m (Trench 33) and 1.49m (Trench 31) below ground level.
- 6.1.3 None of the excavated trenches were found to contain features or deposits of archaeological interest, with all encountered deposits dated as modern.
- 6.1.4 The proposed investigation methodology was effectively employed and the results obtained with confidence.

6.2 Deposit survival and existing impacts

- 6.2.1 In all evaluation trenches, the natural deposits were sealed by 0.84-1.46m of overburden deposits comprising redeposited topsoil and modern made-ground. The recorded made-ground layers constitute the building platform constructed across the site in 2010-11.
- 6.2.2 There was no evidence of buried original topsoil deposits surviving below the made-ground. The preparatory groundworks undertaken across the area as part of the platform construction had clearly removed any such deposits down onto the underlying natural deposits. The truncated surface of the natural deposits was exposed across significant areas of the evaluation trench bases; this did not reveal the presence of any archaeological remains.
- 6.2.2 Evidence of further modern truncation was observed in Trenches 30 and 33, and was likely related to the preparatory groundworks previously carried out on site.

6.3 Discussion of remains by period

- 6.3.1 No pre-modern features or deposits were identified in Trenches 28-33.
- 6.3.2 No archaeological features or deposits associated with the prehistoric barrow remains were found, most pertinently in nearby Trenches 31 and 32. This concurs with the negative results of the 2004 evaluation trenches in their vicinity (Trenches 3, 4, 6, 7).
- 6.3.3 No remains of Late Iron Age, Roman or medieval date were identified. This confirms that such remains, as found in the 2004 evaluation, are confined further to the east beyond the Meadows 2B2C site.

- 6.3.4 No further post-medieval/modern drainage ditches were found, despite 2004 evaluation Trenches 4 and 10 containing such features.

6.4 Consideration of research aims

- 6.4.1 The general aim of the evaluation in determining the location, extent, date, character and quality of any surviving archaeological remains (2.6.1) has been achieved. The impact of past land uses has evidently been minimal. The recent groundworks associated with the proposed development has removed the original topsoil, truncated the surface of the natural deposits and raised the ground level. However, the absence of archaeological remains is likely the result of ancient low impact land use – this low lying and poor-draining flood plain location likely having been used as pasture in the past.
- 6.4.2 The specific aims of the evaluation relating to research questions centred on the adjacent barrow remains (2.6.2) were achieved, albeit with a negative outcome. No evidence of prehistoric land use activity, particularly that which may have been associated with the nearby barrows, was encountered during the evaluation. In addition, there was no evidence of any masking colluvial/alluvial deposits or palaeo-environmental remains to inform on the nature of past land use.
- 6.4.3 Given the absence of pre-modern archaeological remains, the results of the evaluation cannot inform on the patterns of prehistoric burial practice, the relationship between settlement and burial sites and the development and use of monuments in the landscape.

6.5 Conclusions

- 6.5.1 The current trial trench evaluation has demonstrated an absence of archaeological remains within the investigated parts of the Meadows 2B2C development site. This accords with the results of the preceding 2004 evaluation here (Ennis 2004) which identified only the presence of post-medieval/modern drainage ditches and confirmed the nature of the known prehistoric barrow remains (also further recorded during the 2010-11 watching brief in this area of the site (Area A; Wightman 2012)).
- 6.5.2 The evaluation established the presence of 0.66m-1.23m of modern made-ground deposits directly overlying natural deposits, that had recently been deposited during the construction of a level building platform using clays excavated from a borrow pit within the site and elsewhere on the campus.
- 6.5.3 No further evidence associated with the prehistoric barrows was revealed. Given the lack of features encountered during the evaluation, in conjunction with the limited results from previous on-site investigations, it is likely that below-ground remains relating to past land use activity on the river floodplain was minimal and generally agricultural in nature.

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Appendix 1 - Summary Table of Heritage Assets within the Study Area

Listed Buildings are in *Italics*

ASE No	Col. HER Ref. or List No	Summary
1	MCC3043	Barrow cemetery, East of Moler Works, Colchester
2	1337705	SALARYBROOK FARMHOUSE
3	1168648	<i>WEST LODGE</i>
4	1225229	<i>WIVENHOE HOUSE</i>
5	1230434	<i>HULL HOUSE IMMEDIATELY EAST OF LAUNDRY</i>
6	1123638	<i>128, GREENSTEAD ROAD</i>
7	1168658	<i>CHURCH OF ST ANDREW</i>
8	1123578	<i>FORMER CHURCH OF ST LEONARD AT THE HYTHE</i>
9	1123573	<i>61 AND 62, HYTHE HILL</i>
10	1123574	<i>89 AND 90, HYTHE HILL</i>
11	1123575	<i>95 AND 96, HYTHE HILL</i>
12	1123576	<i>98 AND 99, HYTHE HILL</i>
13	1123577	<i>100, HYTHE HILL</i>
14	1123579	<i>142, HYTHE HILL</i>
15	1123580	<i>6 AND 7, HYTHE QUAY (See details for further address information)</i>
16	1230423	<i>106, HYTHE HILL</i>
17	1306772	<i>THE RISING SUN PUBLIC HOUSE</i>
18	1337720	<i>TUDOR COTTAGE</i>
19	1337756	<i>THE QUEEN'S HEAD INN</i>
20	1337757	<i>93, HYTHE HILL</i>
21	1337758	<i>97, HYTHE HILL</i>
22	1337759	<i>126 AND 127, HYTHE HILL</i>
23		Flint spread in trench 10 (ECC 2004)
24		Darker area of ground Farrands photo, 1962
25		Possible ring ditch, Farrands photograph, 1962
26	MCC8944	Polished Neolithic axehead
27	MCC31	Bronze Age socketed and looped axe
28	MCC7102	Bronze Age socketed axe
29		LIA/Roman remains, Trench 21. ECC 2004
30		LIA/Roman remains, Trench 23. ECC 2004
31		LIA/Roman remains, Trench 24. ECC 2004
32		LIA/Roman remains, Trench 25. ECC 2004
33	MCC3102	Group of features at the Knowledge Gateway, the University of Essex, Colchester
34	MCC3104	Occupation features at Tansley House, The Meadows, Capon Road, The University of Essex, Colchester

35	MCC9328	Late Iron Age/Early Roman pit at æParksideÆ, University of Essex, Colchester
37	MCC9166	Old Heath Common, Colchester
38	MCC8966	Wivenhoe Park
39	MCC8658	Wivenhoe Park
40	MCC10072	Medieval occupation features, Innovation Centre, University of Essex
41	MCC3103	Two ditches and medieval pottery, Nesfield Road, the University of Essex, Colchester
42	MCC3051	Medieval occupation features, north of Elmstead Road, Colchester
43	MCC8659	Wivenhoe House
45	MCC5051	Pillbox (destroyed), Sewage Works, Hythe Marshes
46	MCC5053	Pillbox (destroyed), near Malthouse Arms, Hythe
47	MCC5054	Pillbox (destroyed), near Malthouse, Hythe
48	MCC5052	Anti-Tank Obstacles (destroyed), Sewage Works, Hythe Marshes

Appendix 2: HER Summary

Site name/Address: Meadows 2B2C, University of Essex, Wivenhoe Park, Colchester, Essex	
Parish: Colchester	District: Colchester
NGR: TM 02166 24255	Site Code: ECC4352
Type of Work: Evaluation	Site Director/Group: Craig Carvey, Archaeology South-East
Date of Work: 24-26 June 2019	Size of Area Investigated: c.2.2ha
Location of Finds/Curating Museum: Colchester and Ipswich Museums Service	Funding source: Developer
Further Seasons Anticipated?: Unknown	Related HER Nos: MCC3043
Final Report: ADS grey lit report	OASIS No: 359107
Periods Represented: Modern	
SUMMARY OF FIELDWORK RESULTS:	
<p>The c.2.2ha site lies within an area of archaeological interest, as demonstrated by the presence of a prehistoric barrow cemetery comprising five barrows, one of which lies within the site boundary.</p> <p>Previous evaluation of the site in 2004 revealed limited evidence of prehistoric, Late Iron Age, Roman and post-medieval/modern activity. In 2010-11, archaeological monitoring of preparatory groundworks revealed no archaeological remains within the area of the current site, except for residual prehistoric, medieval and post-medieval finds.</p> <p>Given the results of previous investigations and the proximity of the prehistoric barrows, six additional trenches were investigated within the footprints of the proposed buildings.</p> <p>No archaeological features, deposits or residual finds of pre-modern date were encountered within the evaluation trenches. The evaluation established that 0.66m-1.23m of modern made-ground deposits, which had been deposited during the preparatory groundworks, overlaid the natural clay.</p>	
Previous Summaries/Reports:	
<p>Ennis, T. 2004, <i>Land adjacent to Elmstead Road and Boundary Road, University of Essex Colchester: Archaeological Trial Trenching</i>, unpubl. ECC FAU Ref 1328</p> <p>Wightman, A. 2012, <i>An archaeological watching brief at the Knowledge Gateway, the University of Essex, Colchester, Essex September 2010-August 2011</i>, unpubl. CAT Rep. 638</p>	
Author of Summary: C. Howsam	Date of Summary: July 2019

Appendix 3: OASIS Form

OASIS ID: 359107

Project details

Project name	Archaeological Evaluation: Meadows 2B2C, University of Essex, Wivenhoe Park, Colchester
Short description of the project	The c.2.2ha site lies within an area of archaeological interest, as demonstrated by the presence of a prehistoric barrow cemetery comprising five barrows, one of which lies within the site boundary. Previous evaluation of the site in 2004 revealed limited evidence of prehistoric, Late Iron Age and Roman activity. In 2010-11, archaeological monitoring of preparatory groundworks revealed no archaeological remains within the area of the current site, except for residual prehistoric, medieval and post-medieval finds. Given the results of previous investigations and the proximity of the prehistoric barrows, six additional trenches were investigated within the footprints of the proposed buildings. No archaeological features, deposits or residual finds of pre-modern date were encountered within the evaluation trenches. The evaluation established that 0.66m-1.23m of modern made-ground deposits, which had been deposited during the preparatory groundworks, overlaid the natural clay.
Project dates	Start: 24-06-2019 End: 26-06-2019
Previous/future work	Yes / Not known
Any associated project reference codes	190413 - Contracting Unit No.
Any associated project reference codes	ECC4352 - Sitecode
Type of project	Field evaluation
Site status	None
Current Land use	Vacant Land 2 - Vacant land not previously developed
Monument type	NONE None
Significant Finds	NONE None

Project location

Country	England
Site location	ESSEX COLCHESTER COLCHESTER Meadows 2B2C, University of Essex, Wivenhoe Park
Postcode	CO4 3AD
Study area	2.2 Hectares
Site coordinates	TM 02166 24255 51.879621929477 0.937580570551 51 52 46 N 000 56 15 E Point

Project creators

Name of Organisation	Archaeology South-East
Project brief originator	Colchester Borough Council
Project design originator	ASE
Project director/manager	Gemma Stevenson

Project supervisor	Craig Carvey
Type of sponsor/funding body	Developer
Project archives	
Physical Archive Exists?	No
Digital Archive recipient	Colchester and Ipswich Museums Service
Digital Contents	"Stratigraphic"
Digital Media available	"Database", "Images raster / digital photography", "Spreadsheets", "Survey", "Text"
Paper Archive recipient	Colchester and Ipswich Museums Service
Paper Contents	"Stratigraphic"
Paper Media available	"Context sheet", "Miscellaneous Material", "Photograph", "Plan", "Report", "Survey "
Project bibliography	
Publication type	Grey literature (unpublished document/manuscript)
Title	Archaeological Evaluation: Meadows 2B2C, University of Essex, Wivenhoe Park, Colchester
Author(s)/Editor(s)	Dyson, A.
Other bibliographic details	ASE Rep. No. 2019202
Date	2019
Issuer or publisher	ASE
Place of issue or publication	Witham
Description	A4 report approx. 40 pages, including figures and appendices
URL	http://archaeologydataservice.ac.uk

Appendix 4:

Archaeological Evaluation

**Meadows 2B2C,
University of Essex,
Wivenhoe Park, Colchester.**

Written Scheme of Investigation

NGR 602166 224255

**ASE Project no: 190413
Site Code: **TBC****

June 2019 v3

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Archaeological Evaluation

**Meadows 2B2C,
University of Essex,
Wivenhoe Park, Colchester.**

Written Scheme of Investigation

NGR 602166 224255

**ASE Project no: 190413
Site Code: TBC**

Prepared by:	Ellen Heppell	Senior Archaeologist	
Reviewed and approved by:	Gemma Stevenson	Project Manager	
Date of Issue:	10 June 2019 (Project Team)		
Version 2:	13 June 2019 (CBC)		
Version 3:	18 June 2019 (minor revisions on receipt of CBC comment)		

1.0 Introduction

- 1.1 Archaeology South-East (a division of the UCL Centre for Applied Archaeology) has been commissioned by Linkcity to provide a Written Scheme of Investigation in relation to archaeological evaluation by trial trenching in advance of the development of land at the Meadows (2B2C), part of the University of Essex campus at Wivenhoe Park, Colchester Essex (NGR 602166 224255; Fig. 1).
- 1.2 The site is an area centred on National Grid Reference NGR 602166 224255 (Fig. 1). It is situated to the west of the main university campus, defined by Boundary Road, between it and the Salary Brook. The site comprises low-lying lands along the Salary Brook, which will not be developed, and c.2ha area of raised ground which is the development area. The proposed development seeks to erect student residential units, with associated landscaping etc. The development is currently in pre-application with Colchester Borough Council (CBC) Ref. No. 190182.
- 1.3 The proposed works are part of a wider ongoing scheme of development at the University, Infrastructure works (e.g. link roads) have been completed and elements of the overall development have been constructed. Various phases of archaeological works have been undertaken since 2003, on the site itself and in the wider development area. The most recent study is an archaeological desk-based assessment (ASE 2019) which provided a synthesis of the archaeological and historical data relating to the site.
- 1.4 The previous archaeological works have established that the site lies within an area of archaeological importance, particularly in relation to a group of prehistoric barrows. Two survive as upstanding earthworks and a third as a cropmark, and what may be a fourth is visible on Lidar. These lie outside (but close to) the development area. A fifth lies within the development redline. The group is provisionally a Scheduled Monument (Case Ref. 1437082) and as such development is not proposed to take place in the area of the fifth barrow, although it lies within the red-line.
- 1.5 As the development area lies within an area of archaeological interest the CBC Archaeological Officer, Dr Jess Tipper, has recommended that additional archaeological trial-trenching should be undertaken in advance of determination of the application to enable the development of an archaeological mitigation strategy. CBC has issued a Brief of Works. This Written Scheme of Investigation (WSI) sets-out the scope of work for the trial-trenching evaluation. It had been submitted to the CBC and their Archaeological Advisor for approval.
- 1.6 All work will be undertaken in accordance with this document, Standards for Field Archaeology in the East of England (East Anglian Archaeology Occasional Papers 14, 2003) and the relevant standards and guidance of Cifa (2014).
- 1.7 It should be noted that in the event that further archaeological work is required that would be subject to a new Written Scheme of Investigation.

2.0 ARCHAEOLOGICAL BACKGROUND

2.1 Introduction

2.1.1 An archaeological desk-based assessment was carried out in relation to the proposals in April 2019 (ASE Report No 2019070v2). That document synthesised the results of the previous works on the site and vicinity and placed them within their wider context. The following background information has been summarised from that document. Heritage assets referred to in that text are indicated in **bold** and a summary provided as Appendix 1. Locations are shown on Fig. 1.

2.2 Topography and Geology

2.2.1 The Site lies within the campus of the University of Essex, at Wivenhoe Park, 2.5km east of the Roman town walls of Colchester (Fig 1). The overall development area, of which the Site is a part, is delineated to the south and south west by Salary Brook, and the east and north by Elmstead Road and Boundary Road. The Site is situated to the west of Capon Road and north of Annan Road (both of which were constructed between 2009 and 2012).

2.2.2 The Site 'red-line' includes a levelled platform at c.3.15mAOD. This was created in c.2011-2 using clays excavated from a borrow pit within the 'red-line' area and elsewhere on the campus. An area to the western side of the Site, which includes two upstanding barrows and a third visible as a cropmark, remains at its original level and is fenced off.

2.2.3 The underlying natural topography of the Site slopes downwards to the west and the Salary Brook. The following AOD levels have been derived from 'as built' site surveys provided by the client (Drawing Ref. JCE-7292-AB-600; dated 14/12/11) and provide the surface height across the Site after the topsoil was removed. As such they are likely to be at or close to the upper surface of the natural geology – the archaeological horizon. At Capon Road this surface is at c.3.5mAOD, dropping to c.2mAOD along the line of a relict field ditch. Beyond this the slope shallows off, gently dropping to c. 1.8-1.9mAOD in the vicinity of Salary Brook. On this basis the ground level has been raised by c. 1-1.1m across much of the Site and there may have been some ground reduction along the eastern edge by the roadway.

2.2.4 According to the British Geological Survey 1:50,000 scale geological mapping available online¹, the superficial geology of the Site is Intertidal Deposits (Clay and Silt – alluvial deposits) across the lower lying floodplain to the west with a band of Head (diamicton) deposits further upslope. As the ground rises beyond the Site the clays, silts and sands of the Thames Group, the bedrock, outcrop on the valley sides.

2.2.2 Previous archaeological works at the Site (Ennis 2004 and Wightman 2012) established that topsoil (a dark brown grey clayey silt), which has since been removed, overlay silty clay and gravels (the alluvial deposits) which were grey or orange in colour.

¹ <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> accessed Feb 2019

2.3 Previous Archaeological Works

- 2.3.1 The Site lies within an area where there has been a significant amount of recent archaeological investigation as works on the development at the University of Essex have progressed. The following section of the report summarises the works that have been undertaken on the Site itself. Information on those in the wider campus can be found in the DBA.
- 2.3.2 The first stage of archaeological works at the University was an archaeological desk-based assessment of an extension to the masterplan area, to the west of Boundary Road (Heppell 2004). This included the current development area. The DBA established that the development lay in an area of archaeological interest, and upstanding remains and cropmarks representing five barrows (**1**) were present. Four (**1b-d, 1f**) lie outside the raised platform (development area) and the fifth (**1a**) below it (surviving as buried deposits).
- 2.3.3 Pre-determination archaeological trial-trenching was undertaken in 2004 (Ennis 2004). Twenty-seven trenches (a c. 3% sample of the area) were excavated within the area as a whole. Work in the western field, within which the Site is located, established that the barrows/ring-ditches were man-made, i.e. archaeological monuments, although it was unable to definitively establish a date and function.
- 2.3.4 In 2010-11 an archaeological watching-brief was undertaken by the Colchester Archaeological Trust (CAT) during preparatory groundworks (Wightman 2012). These works involved the removal of vegetation and topsoil by bulldozer across 'Area A'. Barrow **1a** lay within this area and was partially stripped by bulldozer and the remainder by a 360 excavator equipped with a toothless bucket. Finds collection, magnetometer survey and detailed Lidar data analysis were undertaken over the barrow. The area was then covered in c.1m of clays.

2.4 Prehistoric

- 2.4.1 The later Neolithic/early Bronze Age saw changes in funerary practice, from communal monuments to individual barrows. These barrows typically survive as cropmarks of ring-ditches, having been 'ploughed out' but they can also survive as upstanding monuments. Examples of both lie within the Site and its immediate vicinity (**1a – f**). The individual monuments have been identified as **1a – 1f** for consistency with previous reporting, particularly Wightman 2012. Typologically these are typical of a Bronze Age barrow, or burial monument. The group is provisionally Scheduled and thus has been excluded from the development area.
- 2.4.2 Barrow **1a** now lays below the newly constructed building platform and the NMR reported it as being visible as a 'low vague mound...with no visible ditch' (NMR TM 02 SW 1). It was barely visible on the ground in 2003/4. Evaluation Trench 27 was positioned to investigate this barrow (Ennis 2004). Excavation revealed a poorly-defined ditch in a position consistent with that of the ring-ditch visible on aerial photographs, one fill of which contained abraded Roman pottery and one small sherd of prehistoric pottery, the former perhaps hinting at the re-use of the monument. The mound was also investigated but its base was not established. The latest worked flint collected

from the interior of the mound is tentatively dated as Iron Age, while Roman pottery was collected from a deposit on the mound and ring-ditch interface. It seems that the surrounding alluvial layers had accumulated against the mound over a prolonged period - perhaps indicating a substantially earlier date than the ceramic evidence would imply. Geophysical survey (Wightman 2012) showed the surrounding ditch was not continuous and the gaps may represent causeways – thus making this example a henge-barrow/causewayed ring ditch.

- 2.4.3 The most obvious of the upstanding barrows is **1c** which is around 0.9m high and 18m in average diameter. There were two electricity poles set into the top of the monument which have since been removed. The NMR refers to this as a bowl barrow (NMR TM 02 SW 1) Barrow **1b** is another upstanding bowl barrow which is also visible at the present time. It measures 15m in diameter (NMR TM 02 SW 1) and approximately 0.5m in height. Barrow **1d** lies to its west and is located adjacent to the railway and the Salary Brook, the diversion of which after the construction of the railway has cut off a part of the western side of the feature. Whilst there is no obvious surviving mound associated with this barrow the surrounding ditch is clearly visible as a cropmark/slight earthwork. Lidar survey data was also utilised, this analysis also identified what may be another barrow to the west (**1f**), marked with a '?' on Plate 7 of the CAT watching brief report (CAT 2012).
- 2.4.4 On the other side of the railway, on the former Moler Works site (now B and Q), aerial photographs show an impressive ring-barrow (**1e**), 28m in overall diameter with two concentric ditches separated by a low bank. Archaeological investigation was undertaken in advance of development but no trace of the ring ditch was located, (M. Winter, CMS, pers comm).
- 2.4.5 This group of monuments is thought to be a barrow cemetery They are typically of Middle to Late Bronze Age date and usually positioned in elevated locations, for example on the brows of hills but increasing numbers of such monuments are being identified in Essex which occupy low-lying positions close to watercourses. Whilst it remains possible that the barrow remains are Iron Age or Roman origin, but these are very much a rarity in Essex, and the later artefacts are perhaps more likely to represent re-use of the barrows.
- 2.4.6 There is little evidence of settlement accompanying the barrows. On a practical basis it is assumed settlement would be upslope, out of the floodplain. A 'flint 'spread', on the interface between the soft alluvial clay and a compact natural clay below, was identified in evaluation Trench 10 (**23**); the only other prehistoric remains identified during the 2004 evaluation were occasional finds. A similar pattern as noted in the 2010/11 watching brief; with the greatest number of flints recovered from the area of the barrow. This is likely to, in part, reflect the greater amount of work in this area. Where datable these flints spanned the Neolithic and Bronze Age. Overall no evidence of settlement pre dating the Late Iron Age/Early Roman periods has been found during the archaeological investigations at the university.

2.5 Iron Age and Romano-British

- 2.5.1 By the time of the Roman conquest of 43AD Colchester (*Camulodunum*) had been established and was the principal centre of the Trinovantes tribe. The

settlement is thought to have been founded in the late 1st century BC, on a site between the Colne and Roman rivers and protected by a series of earth banks and ditches (referred to as dykes) as well as natural features. Late Iron Age and early Roman settlement activity lay some distance to the west of the walled town of Colchester (and the Site) in the vicinity of Sheepen, Gosbecks and Lexden. Work on a legionary fortress to the east of Sheepen began in AD 44 and there was also a Roman colony, founded in AD49 after the withdrawal of the 20th Legion and re-using the site of the fort which became the core of the historic walled town of Colchester. Colchester is well documented as a Roman town, and its walls are still extant in many places.

- 2.5.2 The site lies approximately 2.5km east of the Roman town walls in what was probably a largely rural area. The archaeological evaluation works in 2004 (Ennis 2004) identified a concentration of Late Iron Age to early Roman boundary ditches, post-holes and deposits, centred around Trenches 21, 23, 24 and 25m; that is outside the current development area. Features were also observed in this vicinity during later works (Wightman 2012).
- 2.5.3 Archaeological monitoring at The Meadows, to the south-east of the development area) also identified a colluvial deposit, containing Late Iron Age to Roman pottery, overlying the natural alluvial silty clays. A total of 19 features were observed cutting into the natural, but not excavated, they were subsequently covered by a piling mat (Wightman 2013).

2.6 Early Medieval (Anglo-Saxon) and Medieval

- 2.6.1 The University lies partially within Greenstead and partially within Wivenhoe, within the hundred of Colchester. The earliest known reference to *Grenstede* dates to c. 950, the placename meaning 'green place' (Reaney 1935, 373). Domesday records include 24 acres of marsh and meadow, along with a mill, this would probably have been a watermill (Rumble 1983). The meadow and marsh were probably on the floodplain of the Colne and Salary Brook. In all likelihood this land would have been used as grazing pasture for sheep.
- 2.6.2 It is possibly in the medieval period that the original 'Wivenhoe Park' was established as a deer park (EHCR 16186). Deer parks were private land, surrounded by a deer proof fence, also known as a park pale. In the case of Wivenhoe by the mid-18th century, been converted into a park for 'some time' (Morant 1768, 187). The earliest such source dates to 1734 (ERO D/DU 27/1) and shows a park area enclosed by a fence, with a building along the southern boundary of the park (now Boundary Road); that is to the north of the current development area.
- 2.6.3 Beyond the deer park archaeological trenching and excavation at the new Innovation Centre, east of the current development area (Pooley 2016a and b) identified a number of field boundary ditches, pits and postholes dating to the early/mid-13th – mid-14th century, perhaps suggesting the presence of a small medieval farmstead in the immediate vicinity.
- 2.6.4 The current development area lies to the south and west of the medieval remains described above in an area that is marshy and low lying and, presumably, utilised for pasture. The development of the 'New Hythe' in the c.11th century, may coincide with the first improvements to the Colne. Coupled with the development of the river, alterations may have occurred in

the adjacent marshland, such as that in the vicinity of the current development area. This may perhaps have included new drainage patterns and/or embankments.

2.7 Post Medieval and Modern

- 2.7.1 In the early part of the post-medieval period Wivenhoe Park was owned by the Beriffe family of Brightlingsea (Morant 1768, 188). In 1734 the park was sold to Isaac Lemming Rebow; the Rebows were a Huguenot (Protestant) family who became prominent locally, active in local politics and the army. The estate remained in the hands of the Rebow family until 1902. The park was 'improved' in the 18th century to become a landscape park, with the addition of a new mansion, lakes, formal gardens, a kitchen/walled garden and bridges.
- 2.7.2 It would seem reasonable to suggest that at this time the land that lay outside the boundaries of the park, particularly the flood plain, would have continued in use as pasture. A 1734 map shows the area surrounding the park as fields. The Colne follows roughly its modern route, with the field layout roughly the same as that shown on later maps, particularly the tithe maps drawn up prior to the construction of the railway (ERO D/DU 27/1).
- 2.7.3 The Tendring Hundred Railway opened in 1863 as a single track line linking the Hythe in Colchester to the port at Wivenhoe (NMR TM 01 24). The railway cut across the floodplain of the Colne, resulting in the alteration /simplification of the field system to create larger fields and the re-routing of Salary Brook. These activities bisected barrow **1d** and separated the group from **1e** which lay on the other side of the railway line.
- 2.7.4 The post-medieval remains identified during the earlier evaluation works reflect the primarily agricultural land-use and comprise a number of field ditches, excavated for the purposes of drainage and/or defining field boundaries. These include a length of ditch in Trench 4, located to the west of barrow **1a** (Ennis 2003).
- 2.7.5 Wivenhoe Park house and grounds were occupied by the War Department between 1939 and 1946. World War II features include a possible anti-tank ditch recorded from aerial photographs (**44**). No trace of this feature has been identified in the archaeological investigations across the University.
- 2.7.6 In the 1950s the government announced its intentions to support the creation of a number of new universities. Wivenhoe Park was chosen as a site for the University of Essex and was sold to the University for £75,000 on the 1st January 1962. The University, designed by the architect Kenneth Capon, was centred on the stream running down from the lakes towards the floodplain. Five linked quadrangles were to be constructed on stilts above this, providing the administration, teaching and recreational facilities. Only part of the design was completed, with only six of the proposed 28 residential tower blocks being built.
- 2.7.7 Ordnance Survey mapping through the 20th century shows that the site, lying outside the main area of the campus remained largely unchanged. The barrows (**1**) are first depicted on the 1960 map and there are a number of straight drainage ditches in the area, at least one of which was identified

during the evaluation works (Ennis 2004). These would appear to have been infilled by the 1970s.

- 2.7.8 The University has continued to expand, the main campus is delineated by Boundary Road, with Wivenhoe House and the main park area being relatively unchanged, the house now used as a conference centre. This historic park is on the Register of Parks and Gardens, maintained by English Heritage.

3.0 Project Aims and Objectives

- 3.1 The aim of the archaeological evaluation is to determine the presence or absence of any archaeological remains and to establish their character, location, extent, date and quality. The results of the works aim to provide sufficient information to enable an appropriate archaeological mitigation strategy to be devised.
- 3.2 The archaeological works have the potential to contribute to regional research objectives, set-out in Research and Archaeology Revisited: a revised framework for the East of England. (Medlycott 2011).
- 3.3 Should archaeological remains be found, an assessment of their significance will be made against the wider background of previous fieldwork in the area.
- 3.4 Specific research aims for the trenching are:
- Is there any evidence for additional prehistoric land-use, such as ring ditches, being present within the site?
 - Can this be related to the adjacent archaeological remains of the barrow

This has the potential to contribute to the following regional research question:

Patterns of burial practice need further exploration. This should include the relationship between settlement sites and burial, and the development and use of monuments, including burial mounds as key elements in determining and understanding the landscape (Medlycott 2011,20)

- Is there any additional evidence which relates to past land-use and colluvial/alluvial deposits?
- Is there the potential for the survival of palaeo-environmental remains?

This has the potential to contribute to the following regional research question:

The possibility that significant sites remain hidden under colluviation requires further study (Medlycott 2011, 21)

4.0 Methodology

- 4.1 The evaluation will comprise the mechanical excavation 200m² of trenching and representing a 1% sample of the development area of c.2ha. The trenching will comprise the excavation of three 20m x 1.8m trenches, two 10m x 1.8m trenches and one 30m x 1.8m trenches (dimensions at the base).
- 4.2 A contingency of a further 1% sample will be allowed for; based upon the results of the trenching. The necessity for and scope of any contingency trenching will be determined by the CBC Archaeological Officer.
- 4.3 The indicative location of the trench layout is illustrated on Fig. 2. As noted previously the barrows (1) are provisionally scheduled and thus have been excluded from the development/trenching area. Trench locations have been focused on areas of current development and/or gaps in the earlier (2004) trenching array. Trenches have also been placed to avoid a recently infilled ditch (Fig. 3) in order to reduce the risk of trench flooding.
- 4.4 Any significant changes to the approved trench layout due to on-site constraints will be agreed in advance by the archaeology advisor at Colchester Borough Council. Spoil will be bunded around the edges of the trenches and these will not be fenced.
- 4.5 The trenches will be accurately located using offsets from known positions or a Digital Global Positioning System (DGPS) and DGPS Total Station (Leica 1205 R100 Total Station, Leica System 1200 GPS).
- 4.6 All trenches will be scanned prior to excavation using a CAT scanner. Trenches will be mechanically excavated using a toothless ditching bucket and under constant archaeological supervision.
- 4.7 Machine excavation will continue to the top of archaeological deposits or the surface of natural geology, whichever is uppermost. The exposed sub-soil or archaeological horizon will be cleaned by hand immediately after machine stripping, if required and any archaeological deposits or negative features planned.
- 4.8 It has been noted previously recent 'Made Ground', of up to 1m or greater was deposited across the development area in 2011. Accordingly the archaeological horizon may be buried at depth. In this instance it may be necessary to utilise stepped trenches to facilitate safe access. This is most likely to be necessary in the case of trenches 29-30. Should this be required discussion with the client and LPA advisor will take place before these works.
- 4.9 If groundwater is identified in deep trenches they will be backfilled immediately. No dewatering will be undertaken.
- 4.10 The opportunity to have a meeting on site shall be provided once the trenches are open with the client and/or their representative and the Borough archaeologist to assess the results.
- 4.11 Backfilling will be undertaken by the machine on completion of the work, but there will be no reinstatement to existing condition.

- 4.12 Spoil heaps and trench bases will be scanned with a metal detector as will the spoil derived from excavated features. Any finds recovered by this method will be suitably bagged in accordance with sections 7 and 8 below.
- 4.13 An OASIS online record will be completed for the project.

5.0 Excavation and Recording Techniques

- 5.1 Excavation and recording will be undertaken in accordance with this WSI and the relevant *Standards and Guidance* of the Chartered Institute for Archaeologists (CIfA 2014), and the document *Standards for Field Archaeology in the East of England* (Gurney 2003).
- 5.2 Prior to commencing work on site an OASIS online record will be initiated with key fields completed. Upon completion of the fieldwork the remainder of the form will be updated and a copy included in the evaluation report.
- 5.3 An Event number will be obtained from Colchester Borough Council's archaeologist and will be used as the unique site identifier for all records and finds.
- 5.4 All hand excavation will be carefully undertaken and will follow the stratigraphy of any encountered archaeological layers, features and/or deposits.
- 5.5 In certain appropriate situations and should dry site conditions prevail, water will be used to aid the identification of exposed archaeological features and/or deposits to be hand excavated.
- 5.6 A sufficient sampling of archaeological features and/or deposits will be undertaken in order to determine their nature, date, condition, character and extent. This will comprise at least 10% of the length of linear features such as ditches in sections of up to 2 metres in length and at least 50% (or by half section) of the fills of other discrete archaeological features such as pits, postholes etc.
- 5.7 Should any human burials or remains be encountered the client and the Colchester Archaeological Advisor will be immediately informed. No human remains will be lifted during the course of the evaluation (see section 6.0 below).
- 5.8 The Colchester Archaeological Advisor will be informed at the earliest opportunity of any archaeological features or deposits worthy of preservation.
- 5.9 All excavated archaeological features; layers and/or deposits will be planned, photographed and recorded utilising the assigned site code. All excavated contexts; structures, features and deposits will be drawn on plastic film at a scale of 1:20. Additional plans at a scale of 1:10 will be made of specific features where appropriate, such as human inhumations or cremation burials. Sections of all excavated archaeological contexts will generally be drawn at a scale of 1:10, and where appropriate at a larger scale of 1:20. All site drawings will be digitised.
- 5.10 Bulk soil samples will be collected from datable excavated contexts of buried soils, well-sealed slowly silting features; sealed hearths; sealed features containing evident carbonised remains; peats; well-sealed closed features and water-logged deposits. A representative range of undated features if present will also be sampled. Soil samples will be taken in accordance with English Heritage Guidelines and be a minimum of 40-60 litres (where possible), or 100% of the context where this is smaller. A 20 to 30% sub-

sample of each will be wet-sieved using 0.5mm meshes. Recovered material will be assessed in order to establish its potential for providing information relating to past environment and human activity. Additional guidance will be sought from the Historic England Regional Science Advisor as appropriate. Allowance will be made for taking column samples if necessary

- 5.11 A metal detector will be used on the site to check all archaeological horizons, fills and spoil heaps.
- 5.12 A full digital photographic record (minimum 9 megapixel resolution) will be made of all archaeological features. All photographs, except working shots, will include a board that will detail: the site code, date and context number, a scale and a north arrow.
- 5.13 Digital photography will follow the guidance set out by Historic England in *Digital Image Capture and File Storage: Guidelines for Best Practice*, (July 2015). Each image will be supplied as both a JPEG and a TIFF versions, the latter as an uncompressed 8-bits per channel TIFF version 6 file (See section 2.3 of the Historic England guidance). The contractor must include metadata embedded in the TIFF file. The metadata must include the following: the commonly used name for the site being photographed, the relevant centred OS grid coordinates for the site to at least six figures, the relevant township name, the date of photograph, the subject of the photograph and the direction of shot.
- 5.14 All archaeological remains will be recorded and levelled relative to Ordnance Datum by an archaeological surveyor, using DGPS (Differential Global Positioning System) technology. All archaeological features and deposits will be recorded using the standard context record sheets used by the UCL Field Archaeology Unit. Soil colours are recorded using visual inspection and not by reference to the Munsell Colour chart.
- 5.15 An ongoing site matrix will be compiled during the fieldwork stage, which will be fully phased during the subsequent post excavation stage.
- 5.16 Provision will be made for the archaeomagnetic sampling (by an appropriate specialist) and dating if suitable in situ burnt features are encountered. This will be discussed with the CBC archaeologist and the client.

6.0 Treatment of Human Remains

- 6.1 If human remains are found, work will cease and all necessary statutory provisions followed. The Borough archaeologist and client will also be informed. No burials will be lifted at evaluation stage unless they will be demonstrably damaged by not doing so and in such cases only with a licence from the Ministry of Justice.
- 6.2 A suitably qualified human osteologist will be available to record human remains *in situ*.
- 6.3 Provision will be made for the C14 dating of remains if encountered, subject to all necessary statutory provisions.

7.0 Treatment of Artefacts and Ecofacts other than Human Remains

7.1 Pottery, worked flint, metal and other finds of archaeological significance will be retained and treated according to standard Archaeology South-East procedures. Identification of retained finds will be undertaken by staff of, and specialists contracted by, Archaeology South-East as necessary. All pottery, bone and worked flint recovered from the excavations will be washed and marked with an appropriate code to identify the site and context. Most ceramic and other building material and burnt flint will be identified, counted, weighed and discarded. Samples will be retained as appropriate. Finds will be bagged in polythene bags according to type and context.

7.2 The following specialists will be used if necessary and where appropriate:

Prehistoric and Roman pottery	Louise Rayner & Anna Doherty (ASE)
Prehistoric and Roman pottery	Nick Lavender (external: Essex region)
Post-Roman pottery	Luke Barber (external: Sussex, Kent and London)
Post-Roman pottery (Essex)	Helen Walker (external: Essex)
CBM	Sue Pringle & Luke Barber (external)
Fired Clay	Elke Raemen & Trista Clifford (ASE)
Clay Tobacco Pipe	Elke Raemen (ASE)
Glass	Elke Raemen (ASE)
Slag	Luke Barber, Lynne Keyes (external);
Trista Clifford (ASE)	
Metalwork	Trista Clifford (ASE)
Worked Flint	Karine Le Hégarat (ASE); Hugo Anderson-Whymark (external)
Geological material and worked stone	Luke Barber (external)
Human bone incl cremated bone	Lucy Sibun (ASE)
Animal bone incl fish	Emily Johnson (ASE)
Marine shell (external)	Elke Raemen (ASE); David Dunkin
Registered Finds	Elke Raemen & Trista Clifford (ASE)
Coins	Trista Clifford (ASE)
Treasure administration	Trista Clifford (ASE)
Conservation and x-ray of Archaeology	Fishbourne Roman Villa or UCL Institute
Geoarchaeology	Dr Matt Pope & Dr Ed Blinkhorn (ASE)
Macro-plant remains	Dr Lucy Allott (ASE)
Charcoal & Waterlogged wood	Dr Lucy Allott (ASE)

7.3 The lithic and ceramic finds will be identified by specialists within Archaeology South-East, and preliminary identification of faunal remains may be undertaken if the nature of the deposits justifies such study. All finds in an unstable condition will be stabilised using passive conservation techniques where appropriate before being deposited with the receiving museum.

7.4 Palaeoenvironmental remains will be sampled and processed in accordance with current English Heritage guidelines (English Heritage 2011). Bulk samples will be processed using tank flotation unless considered detrimental to the samples or recovery rate (such as for waterlogged samples). Bulk

samples will target recovery of plant remains (charcoal and macrobotanicals), fish, bird, small mammal and amphibian bone, and small artefacts. Waterlogged samples will be wet sieved through nested sieves and stored in wet, cool conditions or dried if considered an appropriate form of conservation for the remains. Specialist samples may also be taken from dry or waterlogged contexts. Such samples will target recovery of pollen (using monolith tins), molluscs, foraminifera, parasites and insects. Larger samples (80-100 litres) will be extracted wholesale from deposits rich in marine molluscs and large mammal bones. As a general rule waterlogged wood specimens will be recorded in detail in their original location. If removed they will be cleaned, photographed and a thin section sample will be taken for identification. Specimens will either be stored in wet cool conditions or dried if considered appropriate for the material. In all instances deposits with clear intrusive material shall be avoided.

- 7.5 Any finds believed to fall potentially within the statutory definition of Treasure, as defined by the Treasure Act 1996, amended 2003, shall be reported to the Essex County Council Finds Liaison Officer. Should the find's status as treasure be confirmed the Coroner, the client, landowner and the Borough archaeologist will also be informed. A record shall be provided to the Coroner and to the Borough archaeologist of the date and circumstances of discovery, the identity of the finder, and the exact location of the find(s) (OS map reference to within 1 metre, and find spot(s) marked onto the site plan).

8.0 Post-Excavation Analysis, Reporting and Archive

- 8.1 Upon completion of the fieldwork a written report, including plans, digital photographs and drawings, will be completed within four weeks; this will be dependent on the prompt production of any necessary specialist reports. A draft copy will be sent initially to the client for comment and approval and then to the Borough archaeologist. Once the report has been accepted then two final hard copies and one electronic copy in PDF format will be sent on CD at a minimum resolution of 300dpi to the Borough's Historic Environment Record (HER). A copy of the digital vector drawing (e.g. Esri shapefiles or .dxf) of the results will also be supplied to the HER.
- 8.2 The report will contain:
- The aims and methods adopted in the course of the trenching
 - Location plan of the excavated area and/or other fieldwork in relation to the proposed development. At least two corners of each of the trenches shall be given 10 figure grid references.
 - Section drawing(s) showing depths of deposits including present ground level with Ordnance Datum, vertical and horizontal scale.
 - Methodology and detailed results including a suitable conclusion and discussion. Where appropriate the discussion will be completed in consultation with the Eastern Counties Research Agenda and Strategy (Medlycott 2011)
 - All specialist reports
 - A concise non-technical summary of the project results.
 - A clear statement of the archaeological value of the results, and their significance.
 - A comparative discussion with relevant known archaeological information held on the HER
 - A copy of the WSI as an appendix
- 8.3 The report, initially marked DRAFT, will be submitted to CBC for approval within six months of completion of the fieldwork. Once approved a pdf version of the document will be submitted to HER (8.1. above).
- 8.4 A HER summary sheet will be completed within four weeks. This will be completed in digital form and emailed to the CBC Archaeological Officer. This shall include a plan showing the position of the excavation.
- 8.5 Upon completion of the fieldwork an OASIS (Online Access to the Index of Archaeological Investigations) form will be completed for the project. A print-out of the form will be included as an appendix to the final report.
- 8.6 The archive and any finds will be submitted to Colchester and Ipswich Museums' Store, in accordance with the Guidelines on the Preparation and Transfer of Archaeological Archives to Colchester & Ipswich Museums (2008). Permission will be sought from the landowner to deposit the full site archive, including the physical archive, with the Museum. The digital archive will be stored with the Archaeology Data Service (ADS). The CBC archaeologist will be informed when this has been undertaken.
- 8.7 Publication of the results (including any further analysis of the finds from the evaluation stage) at least to summary level (i.e. round up of archaeology in

Essex in *Essex Archaeology and History*) shall be undertaken in the year following the archaeological fieldwork.

9.0 Project Management

- 9.1 The fieldwork will be managed by Gemma Stevenson and the post-excavation analysis by Mark Atkinson.

10.0 Health and Safety

- 10.1 Health and Safety must take priority over archaeological requirements. It is essential that all projects be carried out in accordance with safe working practices and under a defined Health and Safety Policy. A Risk Assessment for the project will be prepared prior to the commencement of work and all relevant health and safety regulations will be adhered to.

11.0 Insurance

- 11.1 Archaeology South-East is insured against claims for: public liability to the value of £50,000,000 any one occurrence and in the aggregate for products liability; professional indemnity to the value of £15,000,000 any one occurrence; employer's liability to the value of £50,000,000 each and every loss.

Archaeology South East
June 2019

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Appendix 1 - Summary Table of Heritage Assets within the Study Area

Listed Buildings are in *Italics*

ASE No	Col. HER Ref. or List No	Summary
1	MCC3043	Barrow cemetery, East of Moler Works, Colchester
2	1337705	SALARYBROOK FARMHOUSE
3	1168648	<i>WEST LODGE</i>
4	1225229	<i>WIVENHOE HOUSE</i>
5	1230434	<i>HULL HOUSE IMMEDIATELY EAST OF LAUNDRY</i>
6	1123638	<i>128, GREENSTEAD ROAD</i>
7	1168658	<i>CHURCH OF ST ANDREW</i>
8	1123578	<i>FORMER CHURCH OF ST LEONARD AT THE HYTHE</i>
9	1123573	<i>61 AND 62, HYTHE HILL</i>
10	1123574	<i>89 AND 90, HYTHE HILL</i>
11	1123575	<i>95 AND 96, HYTHE HILL</i>
12	1123576	<i>98 AND 99, HYTHE HILL</i>
13	1123577	<i>100, HYTHE HILL</i>
14	1123579	<i>142, HYTHE HILL</i>
15	1123580	<i>6 AND 7, HYTHE QUAY (See details for further address information)</i>
16	1230423	<i>106, HYTHE HILL</i>
17	1306772	<i>THE RISING SUN PUBLIC HOUSE</i>
18	1337720	<i>TUDOR COTTAGE</i>
19	1337756	<i>THE QUEEN'S HEAD INN</i>
20	1337757	<i>93, HYTHE HILL</i>
21	1337758	<i>97, HYTHE HILL</i>
22	1337759	<i>126 AND 127, HYTHE HILL</i>
23		Flint spread in trench 10 (ECC 2004)
24		Darker area of ground Farrands photo, 1962
25		Possible ring ditch, Farrands photograph, 1962
26	MCC8944	Polished Neolithic axehead
27	MCC31	Bronze Age socketed and looped axe
28	MCC7102	Bronze Age socketed axe
29		LIA/Roman remains, Trench 21. ECC 2004
30		LIA/Roman remains, Trench 23. ECC 2004
31		LIA/Roman remains, Trench 24. ECC 2004
32		LIA/Roman remains, Trench 25. ECC 2004
33	MCC3102	Group of features at the Knowledge Gateway, the University of Essex, Colchester
34	MCC3104	Occupation features at Tansley House, The Meadows, Capon Road, The University of Essex, Colchester
35	MCC9328	Late Iron Age/Early Roman pit at æParksideÆ, University of Essex, Colchester
37	MCC9166	Old Heath Common, Colchester

38	MCC8966	Wivenhoe Park
39	MCC8658	Wivenhoe Park
40	MCC10072	Medieval occupation features, Innovation Centre, University of Essex
41	MCC3103	Two ditches and medieval pottery, Nesfield Road, the University of Essex, Colchester
42	MCC3051	Medieval occupation features, north of Elmstead Road, Colchester
43	MCC8659	Wivenhoe House
45	MCC5051	Pillbox (destroyed), Sewage Works, Hythe Marshes
46	MCC5053	Pillbox (destroyed), Nr Malthouse Arms, Hythe
47	MCC5054	Pillbox (destroyed), near Malthouse, Hythe
48	MCC5052	Anti-Tank Obstacles (destroyed), Sewage Works, Hythe Marshes

Appendix 2 – ‘As Built’ Site Survey



NOTES

1. All co-ordinates and levels are in metres and relative to Ordnance Survey grid and Ordnance Datum (Newlyn) unless otherwise noted.
2. Any future proposals require liaison with the relevant authority/company.
3. All services typically installed (with regards to depth and arrangement) in compliance with NJUG unless otherwise noted.

LEGEND

- - - - - S278 Boundary
- + 1.99 Original Levels
- ° 8.097 Finished Levels

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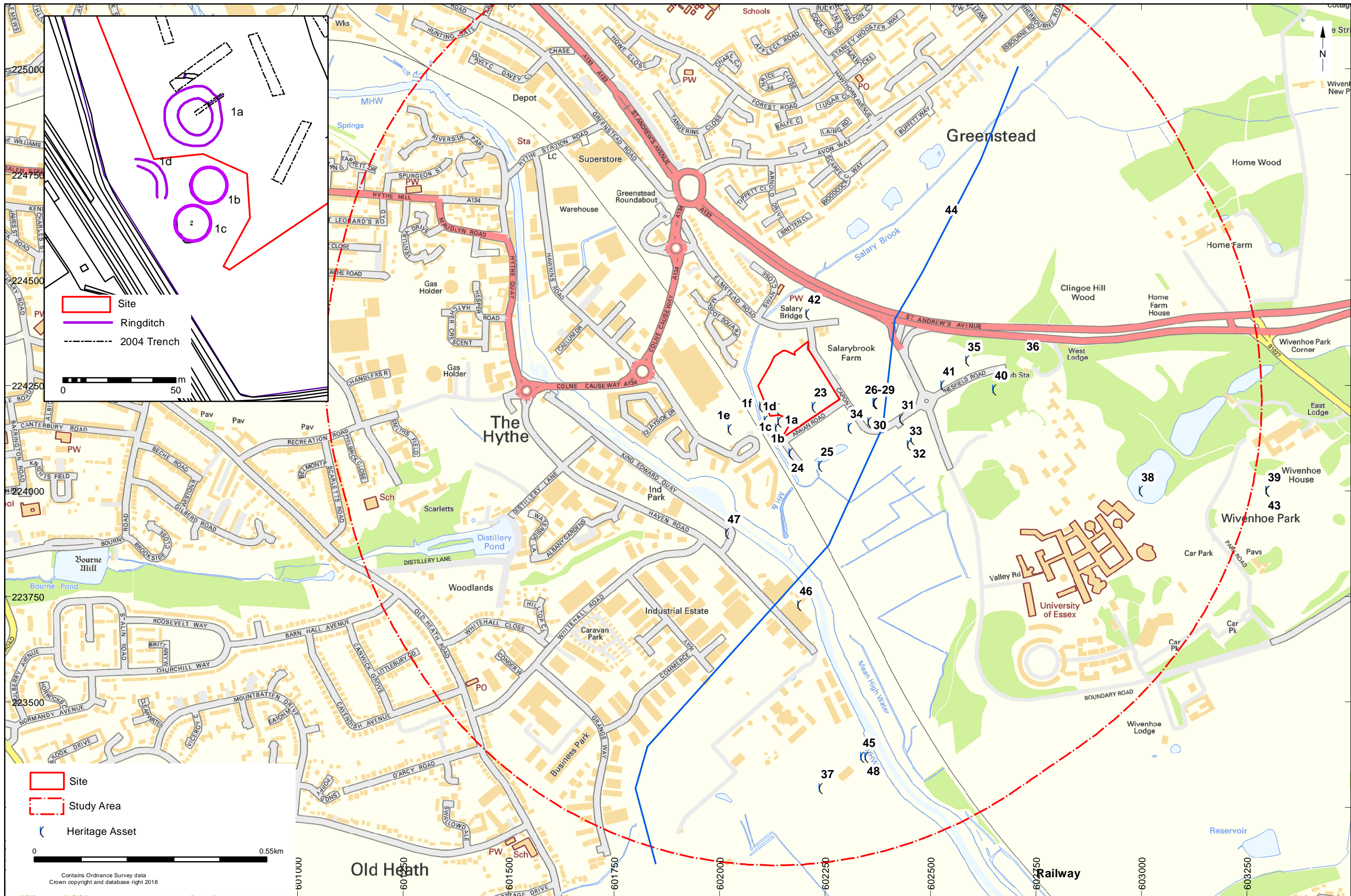


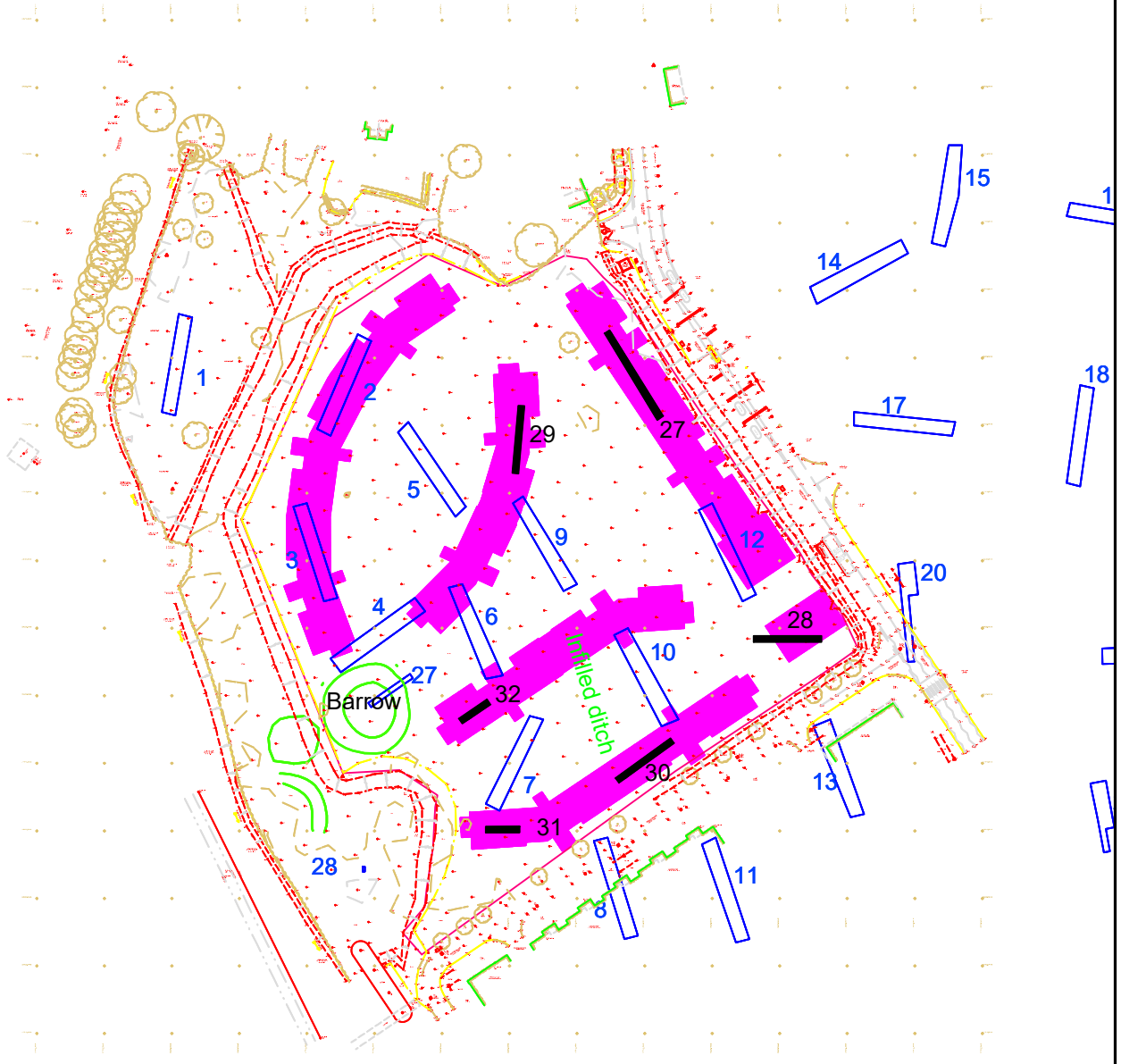
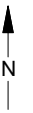
Jackson Civil Engineering Limited
30 White House Road, Ipswich
IP1 5LT 01473 238300


PROJECT
University of Essex
Knowledge Gateway

TITLE
As-Built Earthworks

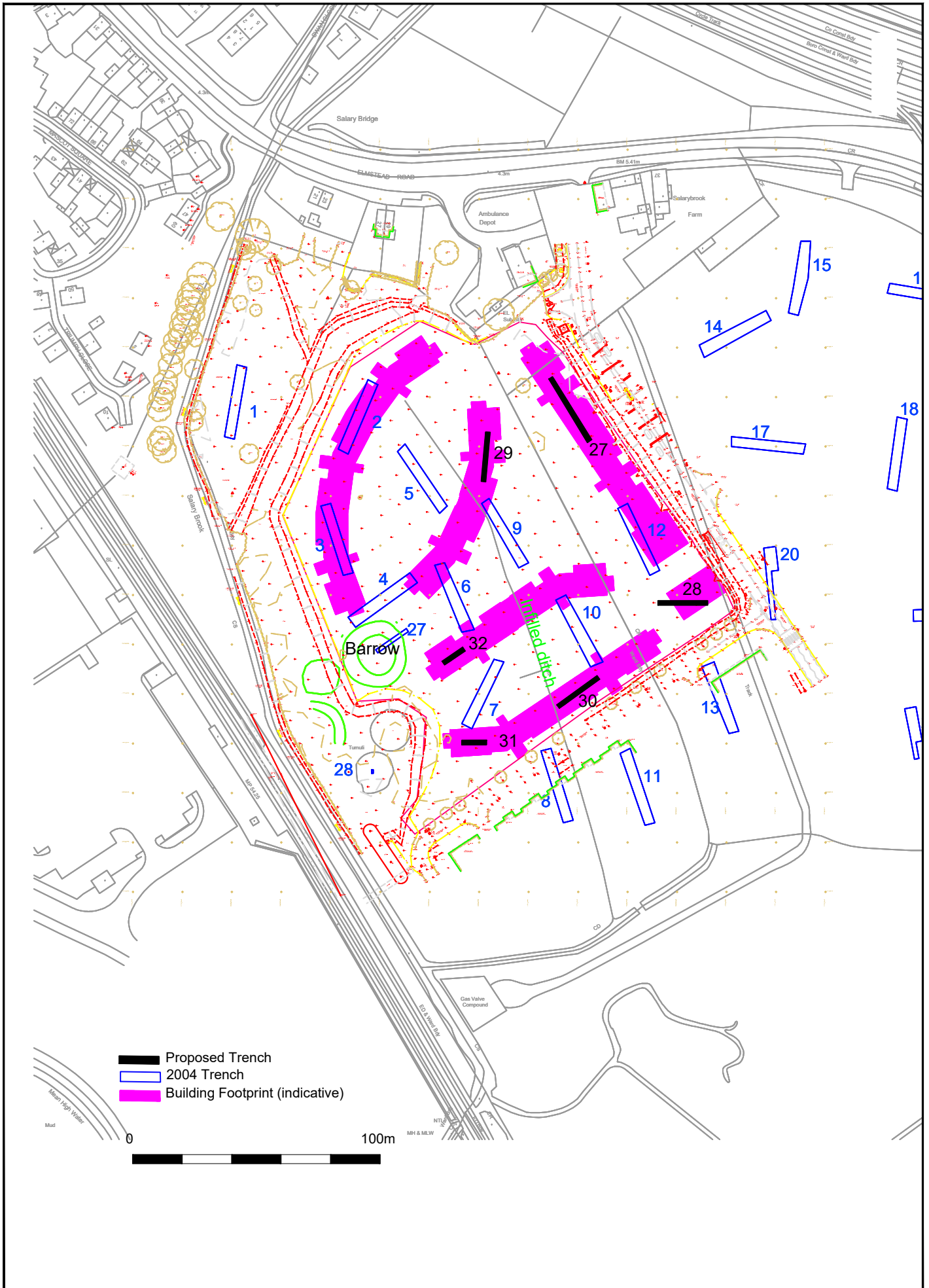
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DRAWING NUMBER					REV
JCE-7292-AB-600					AB





-  Proposed Trench
-  2004 Trench
-  Building Footprint (indicative)





© Archaeology South-East		Meadows 2B2C, University of Essex, Colchester.	Fig. 3
Project Ref: 190413	June 2019	Proposed Trench Locations (on 2004 site plan)	
Report Ref:	Drawn by: EMH		

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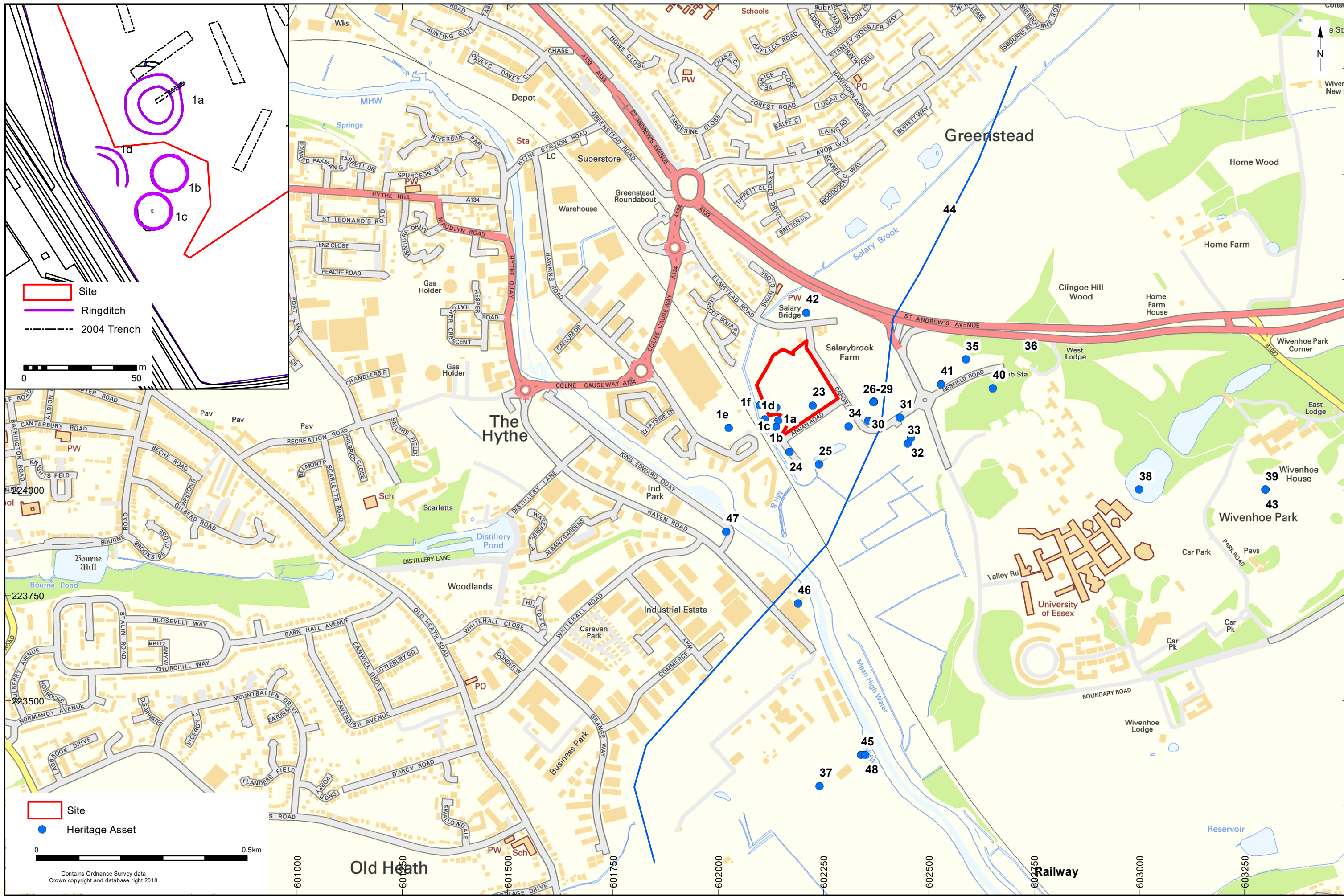
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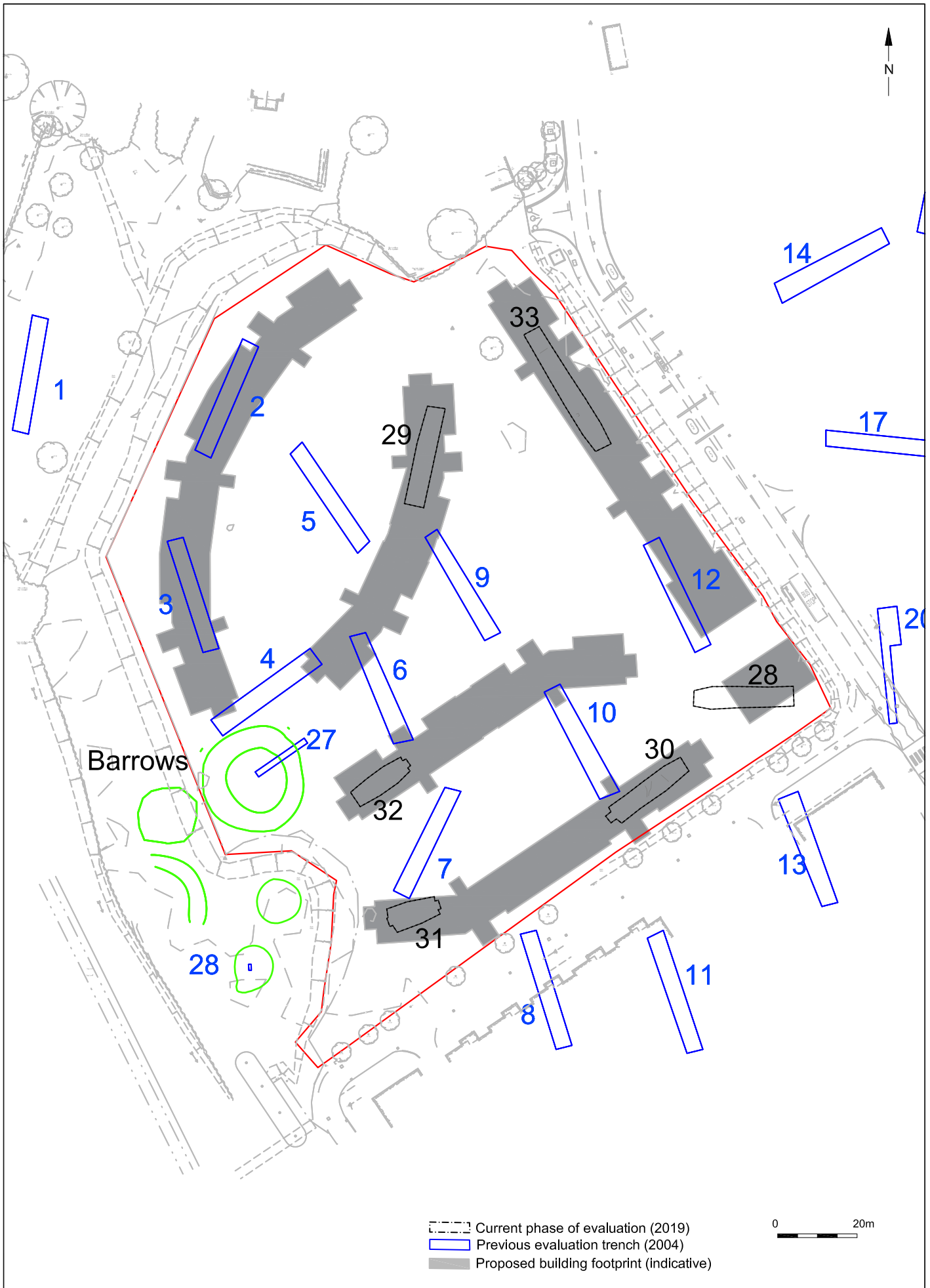
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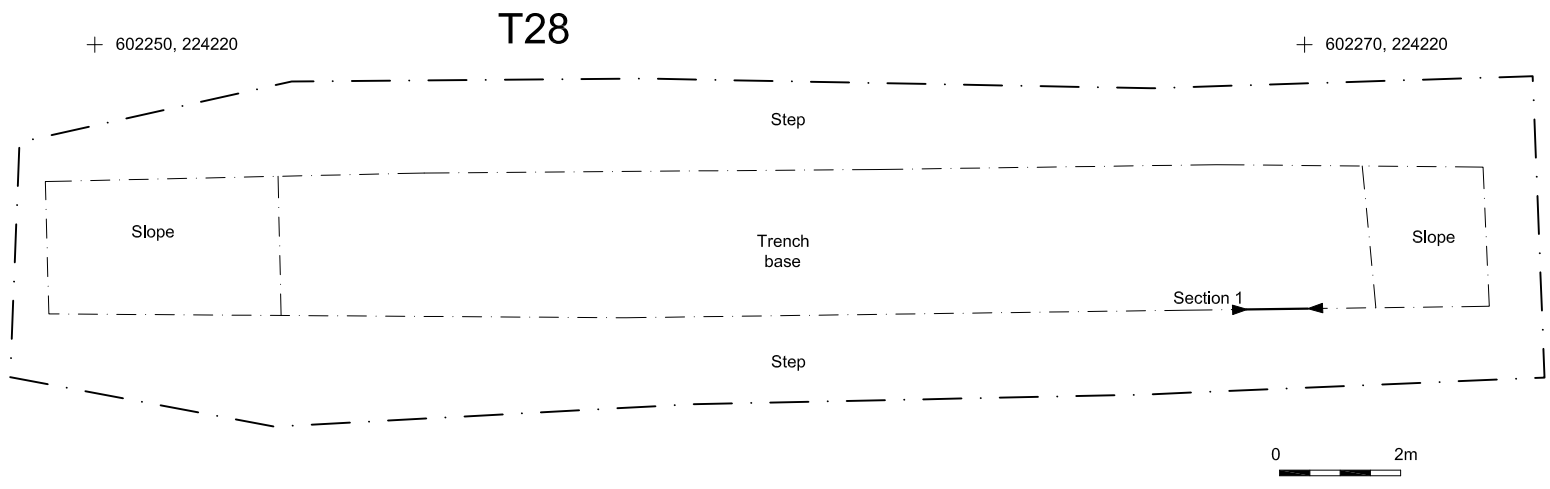




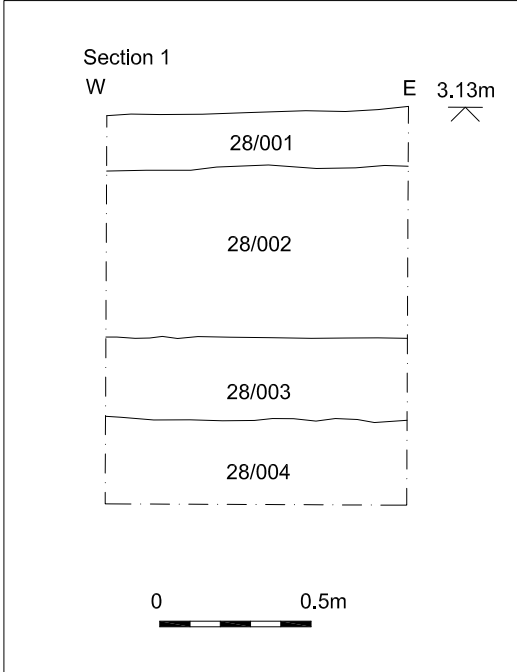
© Archaeology South-East		Meadows 2B2C, University of Essex, Colchester	Fig. 3
Project Ref: 190085	June 2019	Location of Site and Heritage Assets	
Report Ref: 2019202	Drawn by: EH		



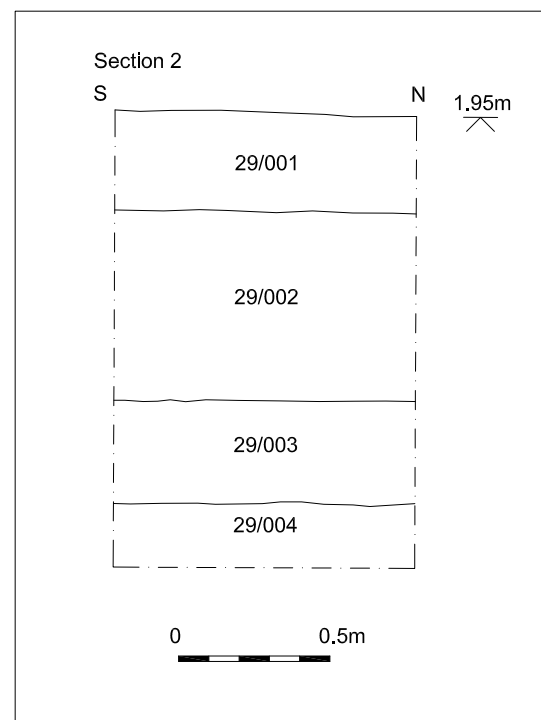
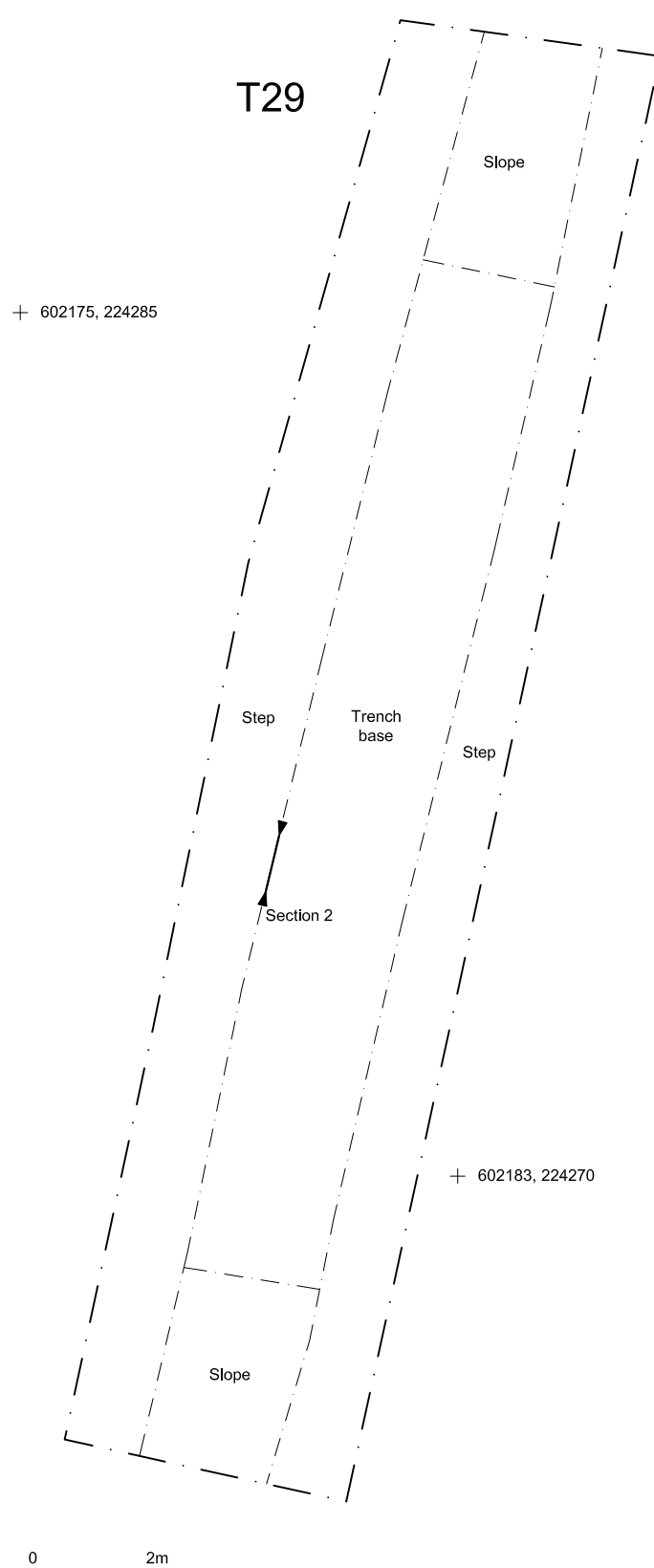
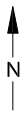
© Archaeology South-East		Meadows 2B2C, University of Essex	Fig. 2
Project Ref: 190413	June 2019	Location of current and previous phases of work	
Report Ref: 2019202	Drawn by: APL		



Trench 28 looking east



© Archaeology South-East		Meadows 2B2C, University of Essex	Fig. 3
Project Ref: 190413	June 2019	Trench 28 plan, section and photograph	
Report Ref: 2019202	Drawn by: APL		

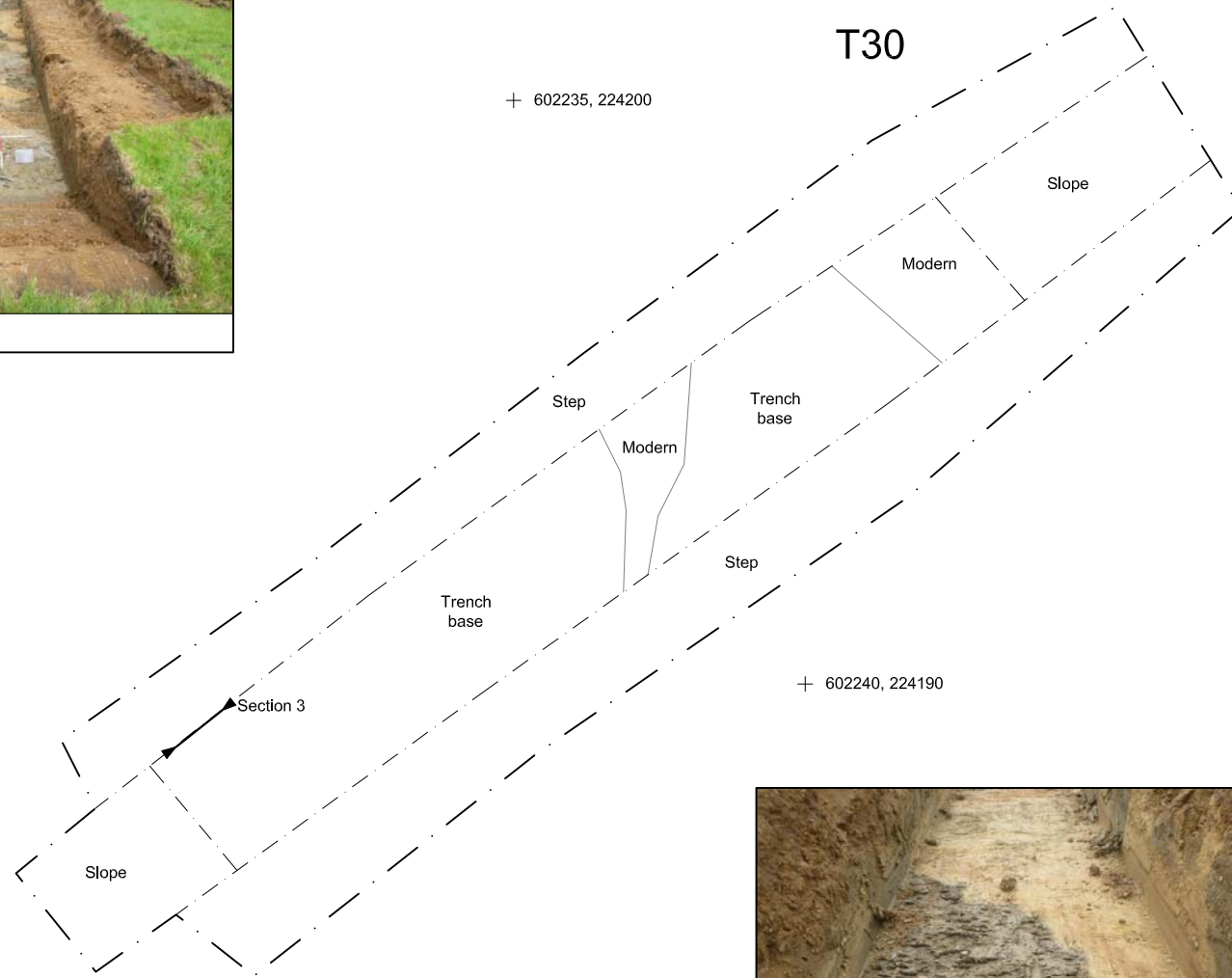


Trench 29 looking north

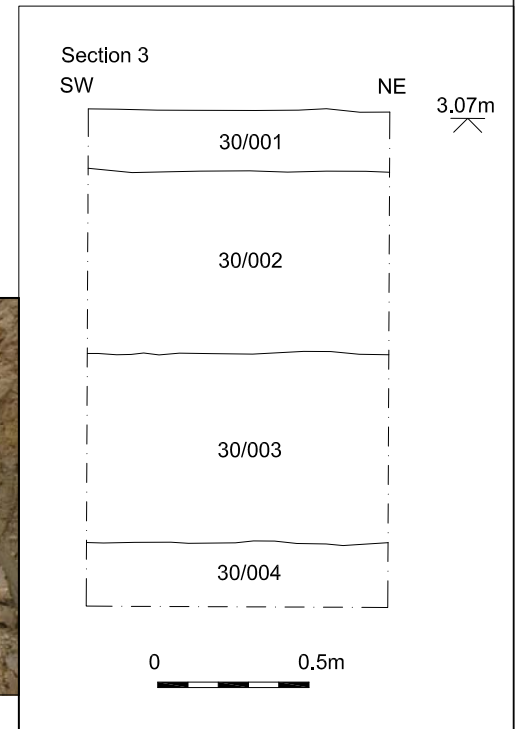
© Archaeology South-East		Meadows 2B2C, University of Essex	Fig. 4
Project Ref: 190413	June 2019	Trench 29 plan, section and photograph	
Report Ref: 2019202	Drawn by: APL		

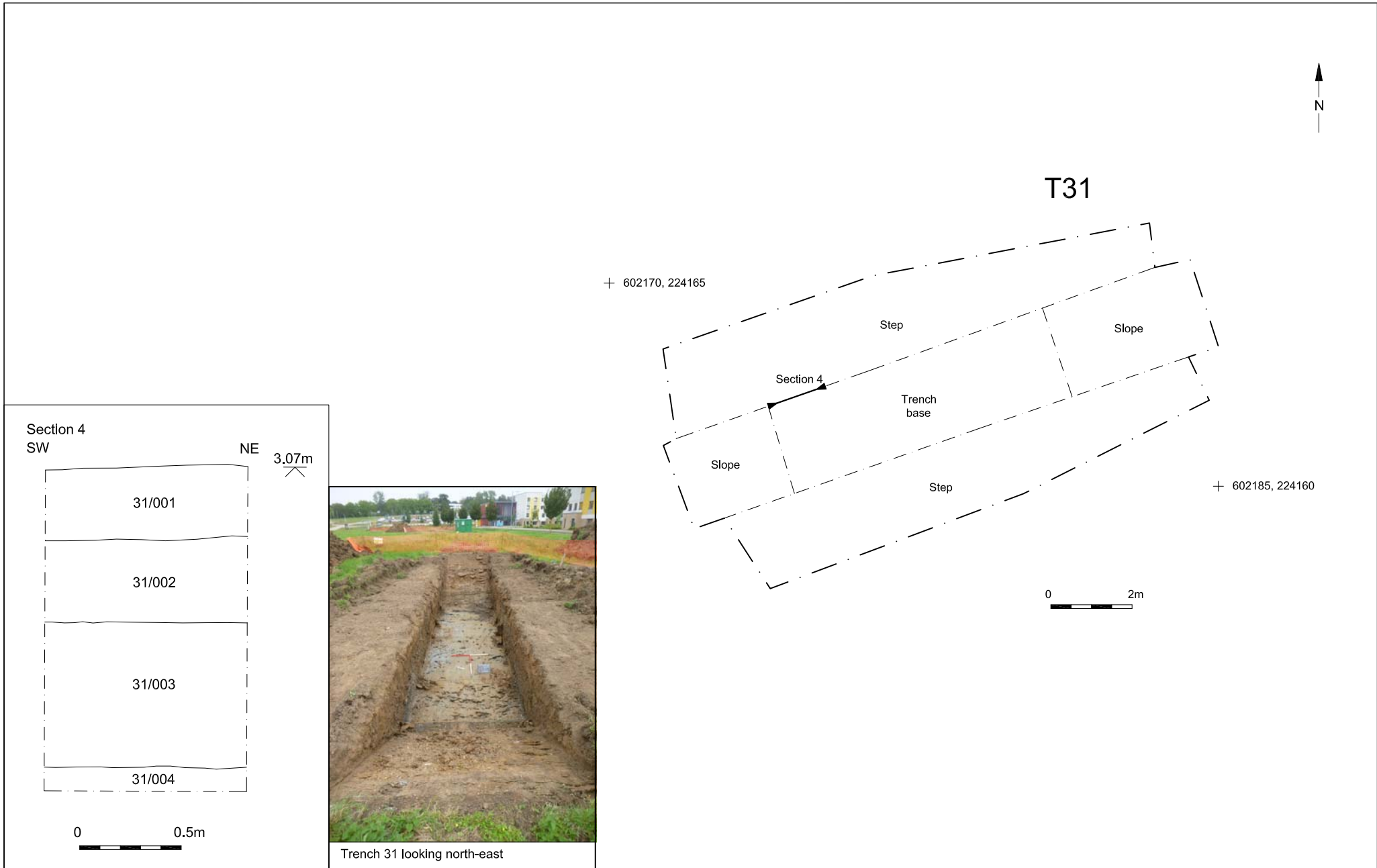


Trench 30 looking north-east



Modern feature crossing Trench 30

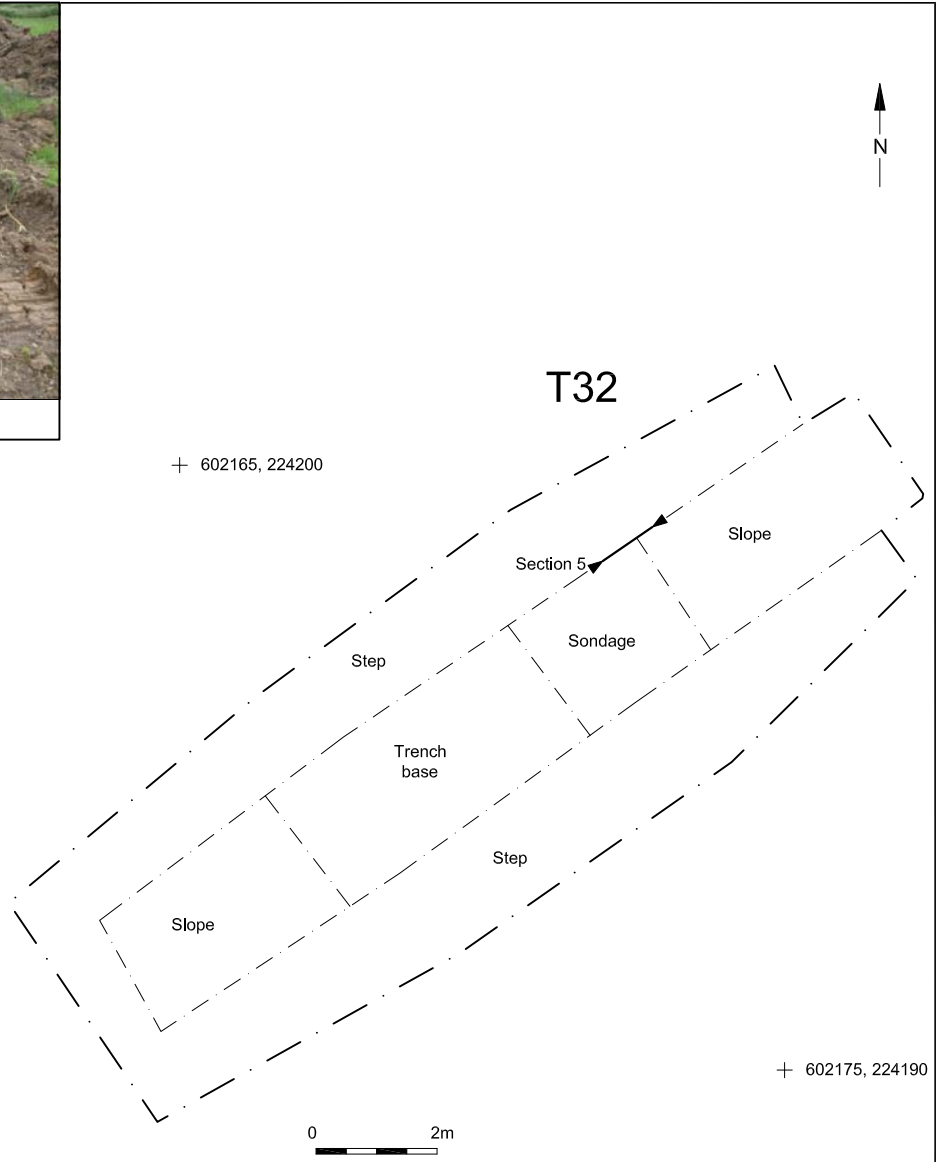
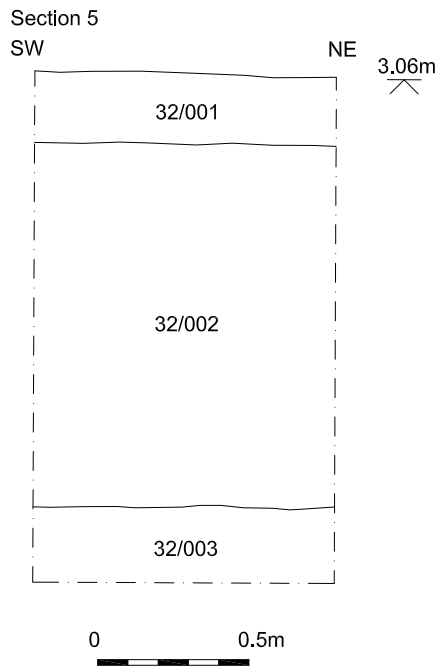




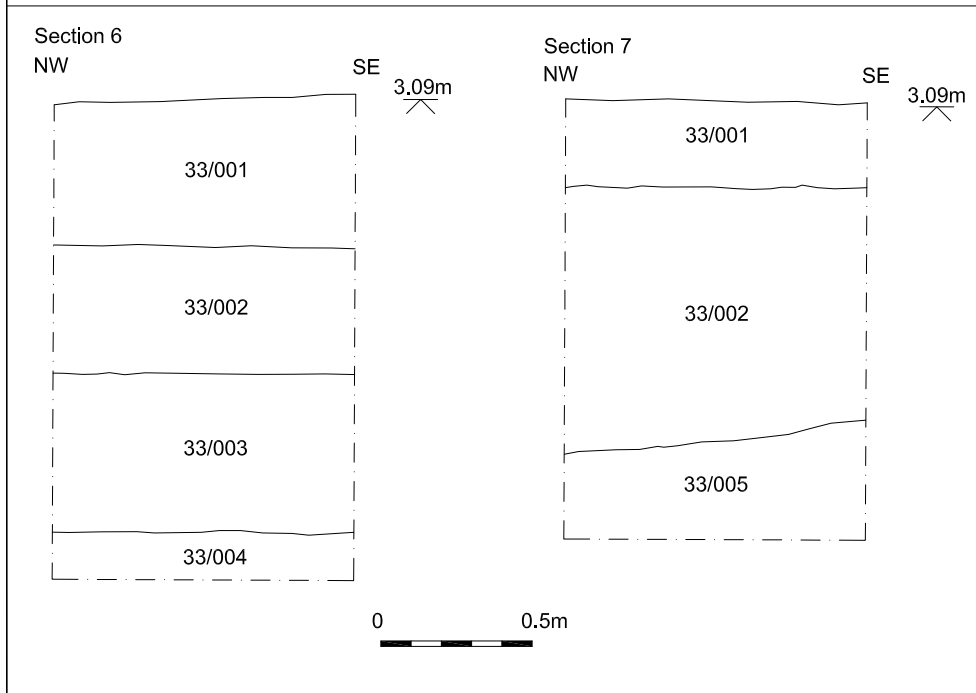
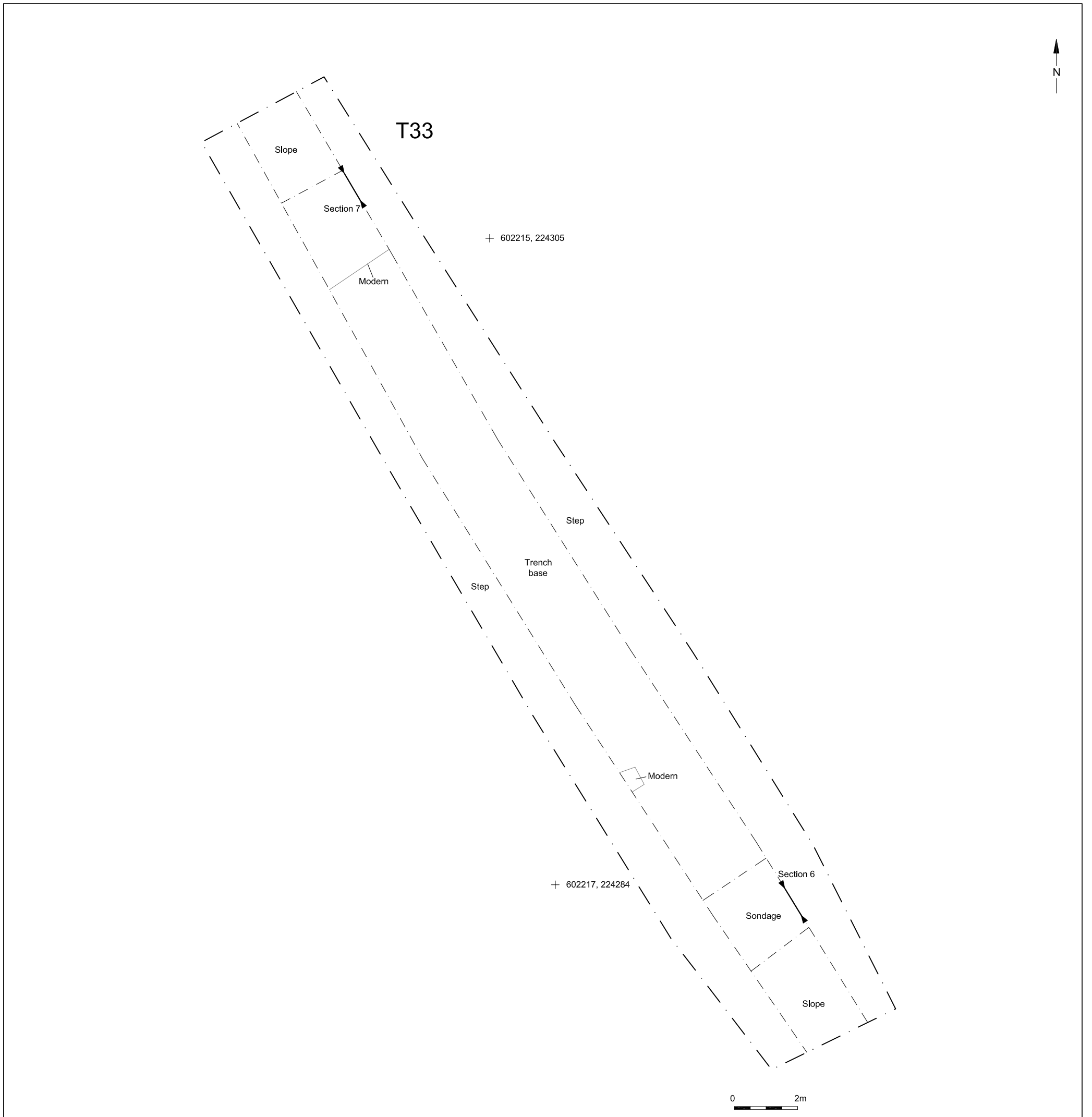
© Archaeology South-East		Meadows 2B2C, University of Essex	Fig. 6
Project Ref: 190413	June 2019	Trench 31 plan, section and photograph	
Report Ref: 2019202	Drawn by: APL		



Trench 32 looking north-east



© Archaeology South-East		Meadows 2B2C, University of Essex	Fig. 7
Project Ref: 190413	June 2019	Trench 32 plan, section and photograph	
Report Ref: 2019202	Drawn by: APL		



© Archaeology South-East		Meadows 2B2C, University of Essex	Fig. 8
Project Ref: 190413	June 2019	Trench 33, plan and photograph	
Report Ref: 2019202	Drawn by: APL		

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